



#5

SEQUENCE LISTING

<110> Mack, David H.
Markowitz, Sanford David
Eos Biotechnology, Inc.
Case Western Reserve University

<120> Novel Methods of Diagnosis of Metastatic Colorectal
Cancer, Compositions and Methods of Screening for
Modulators of Metastatic Colorectal Cancer

<130> 018501-000840US

<140> US 10/087,080

<141> 2002-02-27

<150> US 60/272,206

<151> 2001-02-27

<150> US 60/281,149

<151> 2001-04-02

<150> US 60/284,555

<151> 2001-04-17

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 Ala Gly Thr Gln Gly Gln Leu Lys Val Leu Gly Ala Asn Leu Trp Trp
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 Ala Gly Thr Gln Gly Gln Leu Lys Val Leu Gly Ala Asn Leu Trp Trp
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 <213> Homo sapiens

<220>
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 sialoprotein I, early T-lymphocyte activation 1)
 (SPP1)

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 <211> 300
 <212> PRT
 <213> Homo sapiens

<220>
 <223> secreted phosphoprotein 1 (osteopontin, bone
 sialoprotein I, early T-lymphocyte activation 1)
 (SPP1)

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 35 40 45
 Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Thr Leu Pro Ser Lys Ser
 50 55 60
 Asn Glu Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp
 65 70 75 80
 Asp His Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp
 85 90 95
 Val Asp Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser
 100 105 110
 Asp Glu Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala
 115 120 125
 Thr Glu Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly
 130 135 140
 Arg Gly Asp Ser Val Val Tyr Gly Leu Arg Ser Lys Ser Lys Lys Phe
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 Arg Arg Pro Asp Ile Gln Tyr Pro Asp Ala Thr Asp Glu Asp Ile Thr
 165 170 175
 Ser His Met Glu Ser Glu Glu Leu Asn Gly Ala Tyr Lys Ala Ile Pro
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 Val Ala Gln Asp Leu Asn Ala Pro Ser Asp Trp Asp Ser Arg Gly Lys
 195 200 205
 Asp Ser Tyr Glu Thr Ser Gln Leu Asp Asp Gln Ser Ala Glu Thr His
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 Ser His Lys Gln Ser Arg Leu Tyr Lys Arg Lys Ala Asn Asp Glu Ser
 225 230 235 240
 Asn Glu His Ser Asp Val Ile Asp Ser Gln Glu Leu Ser Lys Val Ser
 245 250 255
 Arg Glu Phe His Ser His Glu Phe His Ser His Glu Asp Met Leu Val
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<210> 13

<211> 3205

<212> DNA

<213> Homo sapiens

<220>

<223> cadherin 3, type 1, P-cadherin (placental) (CDH3)

<400> 13

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<210> 14

<211> 829

<212> PRT

<213> Homo sapiens

<220>

<223> cadherin 3, type 1, P-cadherin (placental) (CDH3)

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35 40 45

Gln Ala Leu Gly Lys Val Phe Met Gly Cys Pro Gly Gln Glu Pro Ala
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Leu Phe Ser Thr Asp Asn Asp Asp Phe Thr Val Arg Asn Gly Glu Thr
65 70 75 80

Val Gln Glu Arg Arg Ser Leu Lys Glu Arg Asn Pro Leu Lys Ile Phe
85 90 95

Pro Ser Lys Arg Ile Leu Arg Arg His Lys Arg Asp Trp Val Val Ala
100 105 110

Pro Ile Ser Val Pro Glu Asn Gly Lys Gly Pro Phe Pro Gln Arg Leu
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Asn Gln Leu Lys Ser Asn Lys Asp Arg Asp Thr Lys Ile Phe Tyr Ser
130 135 140

Ile Thr Gly Pro Gly Ala Asp Ser Pro Pro Glu Gly Val Phe Ala Val
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Glu Lys Glu Thr Gly Trp Leu Leu Leu Asn Lys Pro Leu Asp Arg Glu
165 170 175

Glu Ile Ala Lys Tyr Glu Leu Phe Gly His Ala Val Ser Glu Asn Gly
180 185 190

Ala Ser Val Glu Asp Pro Met Asn Ile Ser Ile Ile Val Thr Asp Gln
195 200 205

Asn Asp His Lys Pro Lys Phe Thr Gln Asp Thr Phe Arg Gly Ser Val
210 215 220

Leu Glu Gly Val Leu Pro Gly Thr Ser Val Met Gln Val Thr Ala Thr
225 230 235 240

Asp Glu Asp Asp Ala Ile Tyr Thr Tyr Asn Gly Val Val Ala Tyr Ser
245 250 255

Ile His Ser Gln Glu Pro Lys Asp Pro His Asp Leu Met Phe Thr Ile
260 265 270

His Arg Ser Thr Gly Thr Ile Ser Val Ile Ser Ser Gly Leu Asp Arg
275 280 285

Glu Lys Val Pro Glu Tyr Thr Leu Thr Ile Gln Ala Thr Asp Met Asp
290 295 300

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Val	Pro	Glu	Asn	Ala	Val	Gly	His	Glu	Val	Gln	Arg	Leu	Thr	Val	Thr	
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Asp	Leu	Asp	Ala	Pro	Asn	Ser	Pro	Ala	Trp	Arg	Ala	Thr	Tyr	Leu	Ile	
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Met	Gly	Gly	Asp	Asp	Gly	Asp	His	Phe	Thr	Ile	Thr	Thr	His	Pro	Glu	
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Val	Leu	Lys	Leu	Pro	Thr	Ser	Thr	Ala	Thr	Ile	Val	Val	His	Val	Glu	
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Asp	Val	Asn	Glu	Ala	Pro	Val	Phe	Val	Pro	Pro	Ser	Lys	Val	Val	Glu	
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	450					455					460					
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 690 695 700
 Gly Gly Gly Glu Glu Asp Gln Asp Tyr Asp Ile Thr Gln Leu His Arg
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 Thr Ile Ile Pro Thr Pro Met Tyr Arg Pro Arg Pro Ala Asn Pro Asp
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 Glu Ile Gly Asn Phe Ile Ile Glu Asn Leu Lys Ala Ala Asn Thr Asp
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 Pro Thr Ala Pro Pro Tyr Asp Thr Leu Leu Val Phe Asp Tyr Glu Gly
 770 775 780
 Ser Gly Ser Asp Ala Ala Ser Leu Ser Ser Leu Thr Ser Ser Ala Ser
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 <213> Homo sapiens

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 <223> KIAA1199

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 <212> PRT
 <213> Homo sapiens

<220>
 <223> KIAA1199

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Phe	Ala	Cys	Tyr	Asp	Arg	Gly	Arg	Ala	Cys	Arg	Ser	Tyr	Arg	Val	Arg	385	390	395
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Thr	Asn	Val	Asn	Ser	Thr	Ile	Leu	Asn	Leu	Glu	Asp	Asn	Val	Gln	Ser	420	425	430
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Tyr	Gln	Ala	Glu	Glu	Phe	Gln	Val	Leu	Pro	Cys	Arg	Ser	Cys	Ala	Pro	450	455	460
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Asn	Ile	Ile	Val	Met	Gly	Glu	Met	Glu	Asp	Lys	Cys	Tyr	Pro	Tyr	Arg	500	505	510
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Ile	Arg	Asp	Leu	Ser	Ile	His	His	Thr	Phe	Ser	Arg	Cys	Val	Thr	Val	580	585	590
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Phe	Asp	His	Cys	Leu	Gly	Leu	Leu	Val	Lys	Ser	Gly	Thr	Leu	Leu	Pro	625	630	635
Ser	Asp	Arg	Asp	Ser	Lys	Met	Cys	Lys	Met	Ile	Thr	Glu	Asp	Ser	Tyr	645	650	655
Pro	Gly	Tyr	Ile	Pro	Lys	Pro	Arg	Gln	Asp	Cys	Asn	Ala	Val	Ser	Thr	660	665	670

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785 790 795 800
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Ile Lys Asn Ser Leu Phe Val Gly Glu Ser Gly Asn Val Gly Thr Glu
835 840 845
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Tyr Asp Gly Pro Ile Asn Ile Gln Asn Cys Thr Phe Arg Lys Phe Val
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930 935 940
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965 970 975
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980 985 990

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Leu

<210> 17

<211> 1619

<212> DNA

<213> Homo. sapiens

<220>

<223> type I intermediate filament cytokestatin (HAIK1)

<400> 17

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<210> 18

<211> 422

<212> PRT

<213> Homo sapiens

<220>

<223> type I intermediate filament cytokestatin (HAIK1)

<400> 18

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Arg	Tyr	Ser	Cys	Lys	Leu	Gln	Asp	Met	Gln	Glu	Ile	Ile	Ser	His	Tyr	
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 370 375 380
 Glu Ser Lys Ser Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala
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 <212> DNA
 <213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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Val	Ala	Pro	Met	Pro	Pro	Ala	Gln	Asp	His	Lys	Arg	Leu	Leu	Glu	Gly	210	215	220
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His	Ala	Gly	Thr	Ala	Leu	Lys	Asn	Gly	Lys	Val	Val	Thr	His	Gly	Gly	370	375	380
Arg	Val	Leu	Ala	Val	Thr	Ala	Ile	Arg	Glu	Asn	Leu	Ile	Ser	Ala	Leu	385	390	395
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Leu	Asp	Ile	Ser	Pro	Glu	Arg	Val	Arg	Val	Gly	Ala	Phe	Gln	Phe	Ser
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 690 695 700
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 Cys Met Asn Glu Gly Ser Cys Val Leu Gln Asn Gly Ser Tyr Arg Cys
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<211> 1780

<212> DNA

<213> Homo sapiens

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Lys Thr Gln Cys Ile Pro Tyr Ser Pro Lys Gly Glu Lys Arg Asn Pro
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50 55 60
Ser Ser Asp Ser Ser Phe Glu Pro Ile Pro Leu Thr Ile Lys Ala Ile
65 70 75 80
Phe Glu Arg Phe Lys Asn Arg Lys Lys Arg Tyr Lys Lys Lys Lys Lys
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Arg Asn Pro Ile Tyr Ser Leu Ile Asp Lys Lys Lys Gln Phe Arg Ser
115 120 125
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130 135 140
Pro Trp Arg Lys Ile Leu Thr Phe Glu Gln Ala Val Ala Arg Gly Phe
145 150 155 160
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165 170 175
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<400> 27

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agaaagtcag catgtatttt tggctcgaag tttctctagt gttttctgtg gaaggaataa 2280
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<210> 28

<211> 278

<212> PRT

<213> Homo sapiens

<220>

<223> FLJ23363, clone HEP15507, MGC5306

<400> 28

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  1                               5                               10                               15

Val Glu Leu Ala Asn Arg Ser Asp Asn Ser Ser Asp Ser Ser Leu Phe
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Lys Thr Gln Cys Ile Pro Tyr Ser Pro Lys Gly Glu Lys Arg Asn Pro
  35                               40                               45
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Ile Arg Lys Phe Val Arg Thr Pro Glu Ser Val His Ala Ser Asp Ser
 50 55 60
 Ser Ser Asp Ser Ser Phe Glu Pro Ile Pro Leu Thr Ile Lys Ala Ile
 65 70 75 80
 Phe Glu Arg Phe Lys Asn Arg Lys Lys Arg Tyr Lys Lys Lys Lys Lys
 85 90 95
 Arg Arg Tyr Gln Pro Thr Gly Arg Pro Arg Gly Arg Pro Glu Gly Arg
 100 105 110
 Arg Asn Pro Ile Tyr Ser Leu Ile Asp Lys Lys Lys Gln Phe Arg Ser
 115 120 125
 Arg Gly Ser Gly Phe Pro Phe Leu Glu Ser Glu Asn Glu Lys Asn Ala
 130 135 140
 Pro Trp Arg Lys Ile Leu Thr Phe Glu Gln Ala Val Ala Arg Gly Phe
 145 150 155 160
 Phe Asn Tyr Ile Glu Lys Leu Lys Tyr Glu His His Leu Lys Glu Ser
 165 170 175
 Leu Lys Gln Met Asn Val Gly Glu Asp Leu Glu Asn Glu Asp Phe Asp
 180 185 190
 Ser Arg Arg Tyr Lys Phe Leu Asp Asp Asp Gly Ser Ile Ser Pro Ile
 195 200 205
 Glu Glu Ser Thr Ala Glu Asp Glu Asp Ala Thr His Leu Glu Asp Asn
 210 215 220
 Glu Cys Asp Ile Lys Leu Ala Gly Asp Ser Phe Ile Val Ser Ser Glu
 225 230 235 240
 Phe Pro Val Arg Leu Ser Val Tyr Leu Glu Glu Glu Asp Ile Thr Glu
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 Glu Ala Ala Leu Ser Lys Lys Arg Ala Thr Lys Ala Lys Asn Thr Gly
 260 265 270
 Gln Arg Gly Leu Lys Met
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<210> 29

<211> 2174

<212> DNA

<213> Homo sapiens

<220>

<223> nuclear factor (erythroid-derived 2)-like 3
(NFE2L3)

<400> 29

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 gagaaggcac ccgcggaacc gacggctcag gtgccggacg ctggcggatg tgcgagcgag 180
 gagaatgggg tactaagaga aaagcacgaa gctgtggatc atagttccca gcatgaggaa 240
 aatgaagaaa ggggtgtcagc ccagaaggag aactcacttc agcagaatga tgatgatgaa 300

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atcagtgatg gcatgaattc ttcagcacat tatcatgtaa acttcagcca ggctataagt 540
caggatgtga atcttcatga ggccatcttg ctttgtccca acaatacatt tagaagagat 600
ccaacagcaa ggacttcaca gtcacaagaa ccatttctgc agttaaatc tcataccacc 660
aatcctgagc aaacccttcc tggaaactaa ttgacaggat ttctttcacc ggttgacaat 720
catatgagga atctaacaag ccaagaccta ctgtatgacc ttgacataaa tatatttgat 780
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catcttggca gccatccttt ttaagagtaa gttggttact tcaaaaagag caaacactgg 2040
ggatcaaatt attttaagag gtatttcagt tttaaatgca aaatagcctt attttcattt 2100
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aaatttgct ttct 2174

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<210> 30

<211> 400

<212> PRT

<213> Homo sapiens

<220>

<223> nuclear factor (erythroid-derived 2)-like 3
(NFE2L3)

<400> 30

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Met Asn Ser Ser Ala His Tyr His Val Asn Phe Ser Gln Ala Ile Ser
 1              5              10              15

Gln Asp Val Asn Leu His Glu Ala Ile Leu Leu Cys Pro Asn Asn Thr
      20              25              30

Phe Arg Arg Asp Pro Thr Ala Arg Thr Ser Gln Ser Gln Glu Pro Phe
      35              40              45

Leu Gln Leu Asn Ser His Thr Thr Asn Pro Glu Gln Thr Leu Pro Gly
      50              55              60

Thr Asn Leu Thr Gly Phe Leu Ser Pro Val Asp Asn His Met Arg Asn
      65              70              75              80

Leu Thr Ser Gln Asp Leu Leu Tyr Asp Leu Asp Ile Asn Ile Phe Asp
      85              90              95

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Glu	Ile	Asn	Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	100	105	110
Asp	Val	Ser	Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	115	120	125
Leu	Asp	Ser	Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	130	135	140
His	Ser	Val	Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	145	150	155
Ser	Ser	Ser	His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	165	170	175
Glu	Pro	Ser	Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	180	185	190
Gly	Asp	Leu	Thr	Phe	Gln	His	Val	Phe	His	Asn	His	Thr	Tyr	His	Leu	195	200	205
Gln	Pro	Thr	Ala	Pro	Glu	Ser	Thr	Ser	Glu	Pro	Phe	Pro	Trp	Pro	Gly	210	215	220
Lys	Ser	Gln	Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Thr	Asp	Arg	Asn	225	230	235
Leu	Ser	Arg	Asp	Glu	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	245	250	255
Val	Asp	Glu	Ile	Val	Gly	Met	Pro	Val	Asp	Ser	Phe	Asn	Ser	Met	Leu	260	265	270
Ser	Arg	Tyr	Tyr	Leu	Thr	Asp	Leu	Gln	Val	Ser	Leu	Ile	Arg	Asp	Ile	275	280	285
Arg	Arg	Arg	Gly	Lys	Asn	Lys	Val	Ala	Ala	Gln	Asn	Cys	Arg	Lys	Arg	290	295	300
Lys	Leu	Asp	Ile	Ile	Leu	Asn	Leu	Glu	Asp	Asp	Val	Cys	Asn	Leu	Gln	305	310	315
Ala	Lys	Lys	Glu	Thr	Leu	Lys	Arg	Glu	Gln	Ala	Gln	Cys	Asn	Lys	Ala	325	330	335
Ile	Asn	Ile	Met	Lys	Gln	Lys	Leu	His	Asp	Leu	Tyr	His	Asp	Ile	Phe	340	345	350
Ser	Arg	Leu	Arg	Asp	Asp	Gln	Gly	Arg	Pro	Val	Asn	Pro	Asn	His	Tyr	355	360	365
Ala	Leu	Gln	Cys	Thr	His	Asp	Gly	Ser	Ile	Leu	Ile	Val	Pro	Lys	Glu	370	375	380
Leu	Val	Ala	Ser	Gly	His	Lys	Lys	Glu	Thr	Gln	Lys	Gly	Lys	Arg	Lys	385	390	395
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<210> 31
 <211> 1209
 <212> DNA
 <213> Homo sapiens

<220>
 <223> winged helix/forkhead transcription factor (HFH1)

<220>
 <221> modified_base
 <222> (1161)
 <223> n = g, a, c or t

<400> 31
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<210> 32
 <211> 402
 <212> PRT
 <213> Homo sapiens

<220>
 <223> winged helix/forkhead transcription factor (HFH1)

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 20 25 30
 Ser Ala Ala Gly Asp Asp Ser Leu Gly Ser Asp Gly Asp Cys Ala Ala
 35 40 45
 Lys Pro Ser Ala Gly Gly Gly Ala Arg Asp Thr Gln Gly Asp Gly Glu
 50 55 60
 Gln Ser Ala Gly Gly Gly Pro Gly Ala Glu Glu Ala Ile Pro Ala Ala
 65 70 75 80

Ala Ala Ala Ala Val Val Ala Glu Gly Ala Glu Ala Gly Ala Ala Gly
 85 90 95
 Pro Gly Ala Gly Gly Ala Gly Ser Gly Glu Gly Ala Arg Ser Lys Pro
 100 105 110
 Tyr Thr Arg Arg Pro Lys Pro Pro Tyr Ser Tyr Ile Ala Leu Ile Ala
 115 120 125
 Met Ala Ile Arg Asp Ser Ala Gly Gly Arg Leu Thr Leu Ala Glu Ile
 130 135 140
 Asn Glu Tyr Leu Met Gly Lys Phe Pro Phe Phe Arg Gly Ser Tyr Thr
 145 150 155 160
 Gly Trp Arg Asn Ser Val Arg His Asn Leu Ser Leu Asn Asp Cys Phe
 165 170 175
 Val Lys Val Leu Arg Asp Pro Ser Arg Pro Trp Gly Lys Asp Asn Tyr
 180 185 190
 Trp Met Leu Asn Pro Asn Ser Glu Tyr Thr Phe Ala Asp Gly Val Phe
 195 200 205
 Arg Arg Arg Arg Lys Arg Leu Ser His Arg Ala Pro Val Pro Ala Pro
 210 215 220
 Gly Leu Arg Pro Glu Glu Ala Pro Gly Leu Pro Ala Ala Pro Pro Pro
 225 230 235 240
 Ala Pro Ala Ala Pro Ala Ser Pro Arg Met Arg Ser Pro Ala Arg Gln
 245 250 255
 Glu Glu Arg Ala Ser Pro Ala Gly Lys Phe Ser Ser Ser Phe Ala Ile
 260 265 270
 Asp Ser Ile Leu Arg Lys Pro Phe Arg Ser Arg Arg Leu Arg Asp Thr
 275 280 285
 Ala Pro Gly Thr Thr Leu Gln Trp Gly Ala Ala Pro Cys Pro Pro Leu
 290 295 300
 Pro Ala Phe Pro Ala Leu Leu Pro Ala Ala Pro Cys Arg Ala Leu Leu
 305 310 315 320
 Pro Leu Cys Ala Tyr Gly Ala Gly Glu Pro Ala Arg Leu Gly Ala Arg
 325 330 335
 Glu Ala Glu Val Pro Pro Thr Ala Pro Pro Leu Leu Leu Ala Pro Leu
 340 345 350
 Pro Ala Ala Ala Pro Ala Lys Pro Leu Arg Gly Pro Ala Ala Gly Gly
 355 360 365
 Ala His Leu Tyr Cys Pro Leu Arg Leu Pro Ala Ala Leu Gln Ala Ala
 370 375 380
 Leu Val Arg Arg Pro Gly Pro His Leu Ser Tyr Pro Val Glu Thr Leu
 385 390 395 400
 Leu Ala

<210> 33
 <211> 3218
 <212> DNA
 <213> Homo sapiens

<220>
 <223> chloride channel, calcium activatd, family member
 4 (CLCA4)

<400> 33
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 aataataatg gctttgaaga tattgtcatt gttatagatc ctagtgtgcc agaagatgaa 180
 aaaataattg aacaaataga ggatatgggtg actacagctt ctacgtacct gtttgaagcc 240
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<210> 34

<211> 917

<212> PRT

<213> Homo sapiens

<220>

<223> chloride channel, calcium activated, family member
 4 (CLCA4)

<400> 34

Met Gly Leu Phe Arg Gly Phe Val Phe Leu Leu Val Leu Cys Leu Leu
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His Gln Ser Asn Thr Ser Phe Ile Lys Leu Asn Asn Asn Gly Phe Glu
 20 25 30

Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp Glu Lys Ile
 35 40 45

Ile Glu Gln Ile Glu Asp Met Val Thr Thr Ala Ser Thr Tyr Leu Phe
 50 55 60

Glu Ala Thr Glu Lys Arg Phe Phe Phe Lys Asn Val Ser Ile Leu Ile
 65 70 75 80

Pro Glu Asn Trp Lys Glu Asn Pro Gln Tyr Lys Arg Pro Lys His Glu
 85 90 95

Asn His Lys His Ala Asp Val Ile Val Ala Pro Pro Thr Leu Pro Gly
 100 105 110

Arg Asp Glu Pro Tyr Thr Lys Gln Phe Thr Glu Cys Gly Glu Lys Gly
 115 120 125

Glu Tyr Ile His Phe Thr Pro Asp Leu Leu Leu Gly Lys Lys Gln Asn
 130 135 140

Glu Tyr Gly Pro Pro Gly Lys Leu Phe Val His Glu Trp Ala His Leu
 145 150 155 160

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Gly Arg Asn Arg Val Tyr Lys Cys Gln Gly Gly Ser Cys Leu Ser Arg
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Ala Cys Arg Ile Asp Ser Thr Thr Lys Leu Tyr Gly Lys Asp Cys Gln
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Phe Phe Pro Asp Lys Val Gln Thr Glu Lys Ala Ser Ile Met Phe Met
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(NR3C2)

<400> 35

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(NR3C2)

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Asp	Ser	Met	His	Asp	Leu	Val	Ser	Asp	Leu	Leu	Glu	Phe	Cys	Phe	Tyr	930	935	940	

Thr Phe Arg Glu Ser His Ala Leu Lys Val Glu Phe Pro Ala Met Leu
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Lys Pro Leu Tyr Phe His Arg Lys
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 17 (TNFRSF17)

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 35 40 45
 Val Lys Gly Thr Asn Ala Ile Leu Trp Thr Cys Leu Gly Leu Ser Leu
 50 55 60
 Ile Ile Ser Leu Ala Val Phe Val Leu Met Phe Leu Leu Arg Lys Ile
 65 70 75 80
 Ser Ser Glu Pro Leu Lys Asp Glu Phe Lys Asn Thr Gly Ser Gly Leu
 85 90 95
 Leu Gly Met Ala Asn Ile Asp Leu Glu Lys Ser Arg Thr Gly Asp Glu
 100 105 110
 Ile Ile Leu Pro Arg Gly Leu Glu Tyr Thr Val Glu Glu Cys Thr Cys
 115 120 125
 Glu Asp Cys Ile Lys Ser Lys Pro Lys Val Asp Ser Asp His Cys Phe
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 Pro Leu Pro Ala Met Glu Glu Gly Ala Thr Ile Leu Val Thr Thr Lys
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35 40 45

Phe Leu Ser Pro Ile Phe Leu Thr Ile Thr Pro Phe Trp Lys Leu Val
50 55 60

Asn	Lys	Lys	Trp	Met	Leu	Thr	Leu	Leu	Arg	Ile	Ile	Thr	Ile	Gly	Ser	
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Ile	Ala	Ser	Phe	Gln	Ala	Pro	Asn	Ala	Lys	Leu	Arg	Leu	Met	Val	Leu	
				85					90					95		
Ala	Leu	Gly	Val	Ser	Ser	Ser	Leu	Ile	Val	Gln	Ala	Val	Thr	Trp	Trp	
			100					105					110			
Ser	Gly	Ser	His	Leu	Gln	Arg	Tyr	Leu	Arg	Ile	Trp	Gly	Phe	Ile	Leu	
		115					120					125				
Gly	Gln	Ile	Val	Leu	Val	Val	Leu	Arg	Ile	Trp	Tyr	Thr	Ser	Leu	Asn	
	130					135					140					
Pro	Ile	Trp	Ser	Tyr	Gln	Met	Ser	Asn	Lys	Val	Ile	Leu	Thr	Leu	Ser	
145					150					155					160	
Ala	Ile	Ala	Thr	Leu	Asp	Arg	Ile	Gly	Thr	Asp	Gly	Asp	Cys	Ser	Lys	
				165					170					175		
Pro	Glu	Glu	Lys	Lys	Thr	Gly	Glu	Val	Ala	Thr	Gly	Met	Ala	Ser	Arg	
			180					185					190			
Pro	Asn	Trp	Leu	Leu	Ala	Gly	Ala	Ala	Phe	Gly	Ser	Leu	Val	Phe	Leu	
		195				200						205				
Thr	His	Trp	Val	Phe	Gly	Glu	Val	Ser	Leu	Val	Ser	Arg	Trp	Ala	Val	
	210					215						220				
Ser	Gly	His	Pro	His	Pro	Gly	Pro	Asp	Pro	Asn	Pro	Phe	Gly	Gly	Ala	
225					230					235					240	
Val	Leu	Leu	Cys	Leu	Ala	Ser	Gly	Leu	Met	Leu	Pro	Ser	Cys	Leu	Trp	
				245					250					255		
Phe	Arg	Gly	Thr	Gly	Leu	Ile	Trp	Trp	Val	Thr	Gly	Thr	Ala	Ser	Ala	
			260					265					270			
Ala	Gly	Leu	Leu	Tyr	Leu	His	Thr	Trp	Ala	Ala	Ala	Val	Ser	Gly	Cys	
				275			280					285				
Val	Phe	Ala	Ile	Phe	Thr	Ala	Ser	Met	Trp	Pro	Gln	Thr	Leu	Gly	His	
	290					295					300					
Leu	Ile	Asn	Ser	Gly	Thr	Asn	Pro	Gly	Lys	Thr	Met	Thr	Ile	Ala	Met	
305					310					315					320	
Ile	Phe	Tyr	Leu	Leu	Glu	Ile	Phe	Phe	Cys	Ala	Trp	Cys	Thr	Ala	Phe	
				325					330					335		
Lys	Phe	Val	Pro	Gly	Gly	Val	Tyr	Ala	Arg	Glu	Arg	Ser	Asp	Val	Leu	
			340					345					350			
Leu	Gly	Thr	Met	Met	Leu	Ile	Ile	Gly	Leu	Asn	Met	Leu	Phe	Gly	Pro	
		355					360					365				
Lys	Lys	Asn	Leu	Asp	Leu	Leu	Leu	Gln	Thr	Lys	Asn	Ser	Ser	Lys	Val	
	370					375					380					

Leu Phe Arg Lys Ser Glu Lys Tyr Met Lys Leu Phe Leu Trp Leu Leu
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 405 410 415
 Arg Lys Leu Gly Lys Val Ala Pro Thr Lys Glu Val Ser Ala Ala Ile
 420 425 430
 Trp Pro Phe Arg Phe Gly Tyr Asp Asn Glu Gly Trp Ser Ser Leu Glu
 435 440 445
 Arg Ser Ala His Leu Leu Asn Glu Thr Gly Ala Asp Phe Ile Thr Ile
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 465 470 475 480
 Met Trp Leu Gly Glu Lys Leu Gly Phe Tyr Thr Asp Phe Gly Pro Ser
 485 490 495
 Thr Arg Tyr His Thr Trp Gly Ile Met Ala Leu Ser Arg Tyr Pro Ile
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 Val Lys Ser Glu His His Leu Leu Pro Ser Pro Glu Gly Glu Ile Ala
 515 520 525
 Pro Ala Ile Thr Leu Thr Val Asn Ile Ser Gly Lys Leu Val Asp Phe
 530 535 540
 Val Val Thr His Phe Gly Asn His Glu Asp Asp Leu Asp Arg Lys Leu
 545 550 555 560
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 580 585 590
 Gln Leu Thr Glu His Gly Asn Val Lys Asp Ile Asp Ser Thr Asp His
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 Asp Arg Trp Cys Glu Tyr Ile Met Tyr Arg Gly Leu Ile Arg Leu Gly
 610 615 620
 Tyr Ala Arg Ile Ser His Ala Glu Leu Ser Asp Ser Glu Ile Gln Met
 625 630 635 640
 Ala Lys Phe Arg Ile Pro Asp Asp Pro Thr Asn Tyr Arg Asp Asn Gln
 645 650 655
 Lys Val Val Ile Asp His Arg Glu Val Ser Glu Lys Ile His Phe Asn
 660 665 670
 Pro Arg Phe Gly Ser Tyr Lys Glu Gly His Asn Tyr Glu Asn Asn His
 675 680 685
 Asn Phe His Met Asn Thr Pro Lys Tyr Phe Leu
 690 695



TABLE 25:

Table 25 depicts SEQ ID NO:, UnigeneID, UnigeneTitle, Pkey, and ExAccn for all of the sequences in Table 26. SEQ ID NO: links the nucleic acid and protein sequence information in Table 26 to Table 25.

Pkey: Unique Eos probeset identifier number
 ExAccn: Exemplar Accession number, Genbank accession number
 UnigeneID: Unigene number
 Unigene Title: Unigene gene title
 SEQ ID NO: SEQ ID NO: found in Table 26

Pkey	ExAccn	UnigeneID	Unigene Title	SEQ ID NO:
426101	AL049987		Homo sapiens mRNA; cDNA DKFZp564F112 (fr	1-5
419145	N99638		gb	6 & 7
426818	AA554827	Hs.340046	DKFZp434A0131 protein	8 & 9
421057	T58283		Homo sapiens cDNA	10
446619	AU076643	Hs.313	secreted phosphoprotein 1 (osteopontin,	11 & 12
431958	X63629	Hs.2877	cadherin 3, type 1, P-cadherin (placenta	13 & 14
409041	AB033025	Hs.50081	Hypothetical protein, XP_051860 (KIAA119	15 & 16
443162	T49951	Hs.9029	DKFZP434G032 protein	17 & 18
436385	BE551618	Hs.144097	ESTs	19-21
447033	AI357412	Hs.157601	ESTs	22 & 23
439608	AW864696	Hs.301732	hypothetical protein MGC5306	24-28
449032	AA045573	Hs.22900	nuclear factor (erythroid-derived 2)-lik	29 & 30
442577	AA292998	Hs.163900	ESTs	31 & 32
429970	AK000072	Hs.227059	chloride channel, calcium activated, fam	33 & 34
424566	M16801	Hs.1790	nuclear receptor subfamily 3, group C, m	35 & 36
457407	AA505035	Hs.345911	ESTs	37
430378	Z29572	Hs.2556	tumor necrosis factor receptor superfam	38 & 39
417332	AW972717	Hs.288462	hypothetical protein FLJ21511	40 & 41

Table 26

SEQ ID NO:1 DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

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AGGGGGGACT	TGAGTATCCT	TTGTTACCTT	CAGGAGATCC	TGAAACCAGT	CCCCCATGGA	180
TACTGAGGGC	TGACTGTATA	GTCCTATCCT	CACGGAACCT	TCATTCTAAT	GGGGGAAGAC	240
TGACTATAAA	CAAAATATAT	GTAATAGGTG	GTGGTAAGTA	CCGTGGAGAA	GTAACAAATG	300
GGGCAAAGTG	AGTTATACAG	CTCCATTCTT	AGAAACCTTG	GAGTACTTTT	CTTAGTTTAT	360
ACTCGTGGTG	GTTTCCTTTT	GTCTCCTTTA	TTACATGGGA	CTCTGACATG	TGCCCCATAGC	420
TAGGGTGACA	GTAGGATCTA	CCCGATAGTA	GGGTGGCAGT	AGGATCTACC	CAAAAAGCGT	480
CCTGCTGATA	CAGGACCAAA	GCATCCTGTT	GTTCTCGAGC	CTATAAAAAG	AGCTAATGGT	540
GTTGCTTCTC	TTAACTGTGG	CCTCCTACAC	TGTGTTTGGG	ATGATTGGTG	ATGTCTTGGA	600
TATTCTGTTT	CTTTGGAAC	TTGAATATAC	AACACTTTAC	TAGGGAATTA	GCAATGGAAG	660
CAGAGCAAAG	ATGTACAGAG	GAAACAATGC	GTAACCTCTG	TGGAATTGAA	GTCATGAGGC	720
AGCAGAGAGC	TTAAATTACA	GCTTTAAAAA	TTTTTATTTT	TTAGAGGGAA	TTTACTTGCG	780
AGTAACAGCA	GTAATAGTTA	ACGGAGCCAG	AATGCTTGAG	TCATATAATT	GCAAAGCAGA	840
GTTGGGAGCA	ACAGATGCTA	AAGAGTAGTT	GCTGTAGTTC	CTCTTTGGGT	CGTAGGAGCA	900
GTTGTTCATAT	TACTATATAG	CTACTGCATG	AAGAAGAGTT	CTTAGTGAGG	CCTGGGTGAA	960
CAGCTCTTCT	TAGTATTCTG	TGTGACCCCA	TTTGACCTTT	TAACAAATCC	CTAAGTAAAT	1020
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ACTGTAATAG	ACTTATATTT	CTGAACATTT	TAGTGCTTGC	CAATATTTGG	TAATATTTAT	1140
GTTTCCTATA	TTTGTAATGA	ACATTCTTCT	TCCGGTACAT	TTTTTGTTAA	ATTATTGTTT	1200
GATGGATAAA	AGTTCACCTT	TTATTGTATA	AAATTGACTG	AGATTAATTT	ATACACATTG	1260
ACAATGGGTA	AATAGAATTT	TTCAGATTAT	TAAAAGCTGA	AGGATGACCA	CGTAAGCAAA	1320
AAAAAAAAAA	AAAAAACCAA	CAAAAATAAA	CCCCAACCCC	TCAACAATT	TCGAACACGA	1380
AACATTCTTC	TGATGCCGGC	ATCCCTGCTT	GCAGGTGTGA	AGGGGGCAGG	AATCAGCGAG	1440
GTGTCTTGGG	CTGAGTCCCC	GGGGAAGAAT	ATGAT			

SEQ ID NO:2 DNA sequence

Nucleic Acid Accession #: X83301.1

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AGTGTGTCTT	TTGAATGCAG	AGAACAAAGT	CGTGGAACAAC	CAGGCTGGGA	CCCCGGCCA	480
GCTGAAGGTG	CTGGGTGCCA	ACCTCTGGTG	GCCGTACCTG	ATGCACGAAC	ACCCGGCCTA	540
CCTGTACTCC	TGGGAGGATG	GTGATTGCTC	ACACCAAAGC	CTTGGACCCC	TCCCAGCCTG	600
TGACCTTTGG	GACCAACTCC	ACCTACGCAG	CAGACAAAGG	GGCTCTGTAT	GTGGATGTGA	660
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TCAAGTGCA	TAACCAGTTC	AAGTTGGAAG	TATGTCTTTT	GAATGCAGAA	AACAAAGTCG	900
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GTACCTGATG	CACGAACACC	CCGCCTACCT	GTAATCGTGG	GAGGATGGTG	ATTGCTCACA	1020
CCAAAGCCTT	GGACCCCTCC	CAGCCTGTGA	CCTTTGGGAC	CAACTCCACC	TACGCAGCAG	1080
ACAAGGGGGC	TCTGTATGTG	GATGTGATCC	GTGTGAACAG	CTACTACTCT	TGGTATCGCA	1140
ACTACGGGCA	CCTGGAGTTG	ATTCCGCTGC	AGGCCCTGCA	GCTGGCCGCC	CAGTTTGTGA	1200
ATTGGTGTA	GACATCACAA	TCCCATTATT	CAGAGCGCGT	ATGGAGTGGA	AACGCTTGTA	1260

GGGTTTCACC	AGTCTTTCCC	AGGGAACCTCC	GATGAAGTGT	TCCAACAAAA	TGAGCGAGTG	1320
AACCAAGAAG	AGGATGACAT	TAGATCCAGG	AGATACAACA	GAGGAGATAA	TCTCCAGGAT	1380
GCCTGTGAAG	AAAGATCCCCT	GGATCCCAGG	ATGATTATAG	GACAAGTTGT	TCATAATCCA	1440
GCAGGCCAGA	AGACTTCCAG	GGAAACTCAT	TTCAAGATGA	AAATGGACCA	GCCGCAGTGG	1500
CTCACGCCTG	TAATACCAGC	ACTTTGGGAG	GCTGAGGCGG	GCGGATCACT	TGAGGTCAAG	1560
AGTTTGAAAC	TAGCCTGGCC	AACGTGGCAA	AACTCCATCT	CTATTAAAGA	TACAAAAATT	1620
AGCCAGGCAT	AGTGGTGCAT	GCCTGTAGTC	CCAGCTACTT	GGGATGCTGA	GGCAGGAAGA	1680
ATTGCTTGAA	CCTGGGAGGC	AGAGTCTGCG	GTGACCGAGA	TCATGCCACT	GCACTCCAGC	1740
CTGGGTGACA	GAGCCAGACT	CCGTCTCTAC	TAAAAAATAA	AAAAAATAA	AAA	

SEQ ID NO:3 Protein sequence:
Protein Accession #: CAA58280.1

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NLWWPYLMHE	HPAYLYSWED	GDCSHQSLGP	LPACDLWDQL	HLRSRQGGSV	CGCDPCEQLL	120
LLVSQLRAPG	VDSAAAGRPV					

SEQ ID NO:4 DNA sequence
Nucleic Acid Accession #: BC002622.1

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ATGCTGTGTC	TAGCTCAAGA	TTTTCTCCAT	CCCCTTATTT	TGGGCCAGTG	GCTGTCATTA	180
CATATGAGAA	CTCAAGCTCC	ATGAGGAGAT	GTTTCATTGT	CGAGAGCAGT	CATGATGGCC	240
TGCACTCCAC	ACAATGCAAC	AGAGTGAAAG	AGCAGGTTCT	GCTTCTTTGG	TGTAGTCCTG	300
AAGCTTCCTA	AGAAACTTCA	CATCAGGTGA	TGGATAGGAG	CAACCCTGTA	AAACCAGCCT	360
TAGACTATTT	TTCAAACAGG	CTGGTGAATT	ACCAGATCTC	CGTCAAGTGC	AGTAACCAGT	420
TCAAGTTGGA	AGTGTGTCTT	TTGAATGCAG	AAAACAAAGT	CGTGGACAAC	CAGGCTGGGA	480
CCCAGGGCCA	GCTGAAGGTG	CTGGGTGCCA	ACCTCTGGTG	GCCGTACCTG	ATGCACGAAC	540
ACCCCGCCTA	CCTGTACTCG	TGGGAGGATG	GTGATTGCTC	ACACCAAAGC	CTTGGACCCC	600
TCCCAGCCTG	TGACCTTTGT	GACCAACTCC	ACCTACGCAG	CAGACAAGGG	GGCTCTGTAT	660
GTGGATGTGA	TCCGTGTGAA	CAGCTACTAC	TCTTGGTATC	GCAACTACGG	GCACCTGGAG	720
TTGATTCAGC	TGCAGCTGGC	CGCCCAGTTT	GAGAATTGGT	GTAAGACATC	ACAATCCCAT	780
TATTCAGAGC	GCGTATGGAG	TGGAACGCT	TGTAGGGTTT	CACCAGTCTT	TCCCAGGGAA	840
CTCCGATGAA	GTGTTCCAAC	AAAATGAGCG	AGTGAACCAA	GAAGAGGATG	ACATTAGATC	900
CAGGAGATAC	AACAGAGGAG	ATAATCTCCA	GGATGCCTGT	GAAGAAAGAT	CCCTGGATCC	960
CAGGATGATT	ATAGGACAAG	TTGTTCATAA	TCCAGCAGGC	CAGAAGACTT	CCAGGGAAAC	1020
TCATTCAAGG	AGGTGAAAAT	GATGGATGAC	TCCTCCAAGA	TGAAAATGGA	CCAGCCGCAG	1080
TGGCTCACGC	CTGTAATACC	AGCACTTTGG	GAGGCTGAGG	CAGGCGGATC	ACTTGAGGTC	1140
AGGAGTTTGA	AACTAGCCTG	GCCAACGTGG	CAAACTCCA	TCTCTATTAA	AAATACAAAA	1200
ATTAGCCAAG	CATAGTGGTG	CATGCCTGTA	GTCCCAGCTA	CTTGGGATGC	TGAGGCAGGA	1260
AGAATTGCTT	GAACCTGGGA	GGCAGAGTCT	ACAGTGAGCC	GAGATCATGC	CACTGCACTC	1320
CAGCCTGGGC	AACACAGTGA	GACTCCATCT	CAAAAAAATA	AAAAAATAA	AA	

SEQ ID NO:5 Protein sequence:
Protein Accession #: AAH02622.1

1	11	21	31	41	51	
MDRSNPVKPA	LDYFSNRLVN	YQISVKCSNQ	FKLEVCLLNA	ENKVVDNQAG	TQGQLKVLGA	60
NLWWPYLMHE	HPAYLYSWED	GDCSHQSLGP	LPACDLCDQL	HLRSRQGGSV	CGCDPCEQLL	120
LLVSQLRAPG	VDSAAAGRPV					

SEQ ID NO:6 DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
ACCTGAGATC	AGGAGTTCGA	GATCAGCCTG	ACCAATAGGG	TGAAACCCCG	TCTCTACTAA	60
AAATACAAAA	AATTAGCTGG	ACACGATGGT	GGGTGCCTGT	GGTCCCGGCT	ACTCGGGAGG	120
CTGAGACAGG	AGAATCAGTT	GACCTGGGAG	TTGGTGGTTG	CAGTGAGCTG	AGATCACACC	180
ATTGCATTCC	AAGCCTGGGC	AACAAGAGTG	AAACTCCATC	GCAAAAAAAAA	AAAAGAAGGG	240
GCATAATTTG	TGGATGAGGA	TTGGATATAA	GGTAAAGGAT	GGGACATTCT	TGGACTTACA	300
GATGGTGTGA	TTGCCTGGCT	AGAAGAAGAA	TTCCCGGTCA	AAAAGAAACC	ATCAGCTTTC	360
CAAGTGTGAA	AGAGAGATAA	ATCTGTGAAG	ATTATAGGGA	CTACAGGAAA	CTTAATCTTT	420
TTCTTTGAAA	AAGCAATTGT	AGCAAAAAAAAA	AAGAAAATTT	CTTACTGTCA	TCTAAAATTG	480
ACATGGACAT	CTTAGTGGAC	TAGAAGTTAA	GGGCATAAAT	TCTCCAGTGT	ATTTTAAATT	540
TTAGCATTGT	GATTAACACC	TTCTAAAATT	GCCAGAACTT	AATAAATAAT	TGCTTTTCAT	600
TATTAGTATG	CCATCAAATT	TAGTAGCTGT	TTCAGGCTTT	AATGTGTCAA	GCCTAAAATC	660
CAGATTTTGT	AGGATCTTCT	CCCTCTTAAA	AGAGTATTCA	GTTAACTGCC	GTAGAAATAC	720
ACATGTATAC	AAGGGCACTG	TATACATCAG	TCTAAAAAAT	AAAAATATGT	ATACGTTCTG	780
GTGAGTCTAG	CACAGCATTG	CCCAATAGAA	ATACCAATGG	AGGTCACAAA	TGTGGCCCAT	840
ATAGGTTAAT	TGGTAAATTT	TCTNATAGNC	ACC			

SEQ ID NO:7 DNA sequence

Nucleic Acid Accession #: AK000942

Coding sequence: 1204-1503

1	11	21	31	41	51	
GTAAAGGAAT	GTCTTTTTTAA	TTCAGCTTTT	CTTTTCTCCA	TGCTAGTGTT	ATCAGGTTTT	60
GGTATTTATT	TACTTACAGC	ATATGTTATG	AAGCTGGTTT	GAAAATTGGT	TTTAGATATA	120
TCTGCAAGTT	TACTACTTTG	ACTGTAAAAA	AAAAAAATGA	AAAAGTAGTT	GACATCTGTC	180
CTCAGAAGAA	GTTTGCAGGT	TGCATATTTG	TGTGTAAATA	CACAGGCTAA	AAGGTAATTT	240
ATGTTCCCTG	GGAATTGAAA	TGGTCAGTGG	CCCGTTACAG	AAACTTATCA	GTCATATATC	300
AGCACCAGTT	CATTCTTTTG	CACCTTAGGG	ACCATCTGTC	CCCTGAGGTG	ACCTGAGAAA	360
CAACCAGTTG	CCCACAGACT	GTTATTTCTT	CAAGTGAGCC	AGGATTTGAT	TTCCTGCTCT	420
TATATCTTAT	TTTATAGTGA	CAGTGCTTTG	ATTTTGTGGA	AAAACATAAT	TTTAAACATA	480
TTTGAAAAAT	GTTATAAGAC	TTGGACATTA	AGTCTGTTGA	TAGCCAAAGT	CAGTTTACCA	540
AAGTAAAACA	AATAAATTCT	ATGCTTCTTC	ATTGTCAAAG	AGCAGTCTGC	CATCATGTGG	600
ATATAAATGG	ACTATGTAAA	GTGACATGGT	GCTTACTCTC	TACCTAATAA	TAGCCTCCCT	660
CCTGTTCCAA	CAAGATAACC	AACAGGTATA	TTTAATTTAC	CAGTTAATAT	GTTTTGGATA	720
ATTGGCTGCC	TTGAAATGCT	ATATGTTTTA	TAGTACATCA	TAGCTTTAGT	TTTCTTCATA	780
AGGAAATTAC	AGTTACATCC	TGGCTAACAT	GGTGAAACTC	CATCTCTACT	AAAAATACAA	840
AAAATTAGCC	GGGCGTGGTG	GCGGGCACTT	GTAGTCCCAG	CTACTCGGGA	GGCTGAGGCA	900
GGAGAATGGC	GTGAACCCAG	GAGGCGGAGG	TTGCAGTGAG	CCGAGATCGT	GCCACTGTAC	960
TCTGGCCTGG	GAGACAGAGC	GAGACTCCAT	CTCAAAAAAA	AAAAAAAAGA	AAAAAAAAGA	1020
GAGAGAGAGA	CCTGGAGTAG	AGATTCTGTC	AAAGAACTTT	TTCTTTCTTG	AGAAGCATCT	1080
GAAATGGAAT	CTGTTGTCTC	TTCGAAATAT	GTAAGTCTGT	AACAGTGAAA	CAACCCTCAG	1140
AGTATGCCTT	CGTTGTTGGT	ACTCGTTGTG	GTTTTGAACT	TGGGGGAACT	GTCTGTGTTT	1200
GGGTCAAGAA	TATGCAACTG	GCTGGGCACA	TTGGCTCACG	CCTGTAATCC	CAGCAATTTG	1260
GGAGGCTGAG	GCAGGCGGAT	CACCTGAGGT	CAGGGCTTCA	AGACCAGACT	GGCCAACATG	1320
GTGAAACCCC	GTCTCTACTG	AAAATACAAA	AATTAGCTGG	GCATGGTGGC	AGGTGCCTGT	1380
AATCCCAGCT	ACTCGGGAGG	CTGACGTGAG	AGAATCGCTT	GAACCCGGGA	GTTGGAGGTT	1440
GCAAGTGAGC	GAGATTGCAC	CATTGCACTC	CAGCTTGGGC	AACAAGAGTG	AAACTCTTGT	1500

CTCAG

SEQ ID NO:8 DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
GACTAGGCTG	GGCAACATAG	TGAGACCTCA	TCTCTAAAAT	TAAAAAAATA	AAAGCCACCA	60
GAAAAAAACC	TAAAAACATG	CCAAGTGACA	TCAGTCTTTG	ATGAAAATGG	CAGCAGAAGA	120
GTGATGCCAT	GGGTGGGGGT	GGGAAATGCT	ATTTTCAGCAG	AGAGGGAGCT	GTCATGGAAG	180
ACACCATGTG	GCTGGGCACG	GTGGCTCACA	CCTGTAATCC	CAGCACTTTG	GGAGATAGAG	240
GCAGGTGGAT	CCCTTGAGCT	TAGGAATTTG	AGACTAGCCT	GGGCAATAAG	AGTGAAACTC	300
CATCTCAAAA	AAAAAAAAAA	AAAAAGGTGC	ATGAAACATA	TGAAGCAAAA	AGTGAAAGTC	360
CCCATTCTTT	TCCTTTTTC	AGAGGTGATT	TTTGTGGCCA	ATCTGGTTTC	ATTCCCTCCC	420
AGACACTTTT	CTAGGCATCT	ATGCGCCTCT	ATTACATAT	AAACAAAATA	GGAGTTTTC	480
TGTGCTTCCC	TTAAATGGCA	TATGTATCTT	TCACTCTTTT	TTTTCACCTA	GTGGATCTTT	540
AATACCTTAA	AAGCTCAACC	TGGGCTTGGT	CGGGTGGCTC	ATACGTGTAA	TCCCAGGCCT	600
TTGGGAGGCT	AAGGTGGGAG	GATCACTTGA	GCTCAGGAGT	TCCAGACCAT	TCCAAAGCAA	660
AAACAAAAGG	ATTTTGAGAT	CAGTGTGGGC	AACCTAGCAA	AACACCATCT	CTTAAAAAAA	720
AAAAAAAAAA						

SEQ ID NO:9 DNA sequence

Nucleic Acid Accession #: BC010433.1

Coding sequence: 3-335

1	11	21	31	41	51	
GGTCGCCCTC	CGTCGTGGTC	TGGCGTGTAT	TCCGAGCCTT	GGTGTCTGGC	GGTTTCCGAG	60
CGTTGGTGTC	TGGCGGTTTC	CGAGCGTTGG	TGTCTGGCGG	TTTCCGACCG	TTGGTGTCTG	120
GCGGTTTCCG	ACCGTTGGTG	TCTGGCACGC	GCCACCCTCT	CTTGCTTTGG	TTGCGCCATG	180
CCGATGTACC	AGACAAGAAG	ACAAGAAAAT	GATTTGAGGA	CAGCTTCAAT	CGCGGTGTGA	240
AGAAGAAAGC	AGCAAAACGA	CCACTGAAAA	CAACGCCGGT	GGCAAAATAT	CCAAAGAAAG	300
GGTCCCCAAG	GGTACATCGT	CATAGCCGGA	AACAGTCAGA	GCCACCAGCC	AATGATCTTT	360
TCAATGCTGC	GAAAGCTGCC	AAAAGTGACA	TGCAGCACCG	AGAAGTCCGC	GTGAAGTGCG	420
TGAAGGCTCT	GAAAGGGCTG	TACGGTAACC	GGGACCTGAC	CGCACGCCTG	GAGCTCTTCA	480
CTGGCCGCTT	CAAGGACTGG	ATGGTTTCCA	GTATCATGAG	CAGAGAGTAC	AGTGTGGCAG	540
TGGAGCCCGT	CAGATTACTG	ATACTTATCC	TTAAGAACAT	GGAAGGGGTG	CTGATGGACG	600
TGGACTGTGA	GAGCGTCTAC	CCCATTGTGT	AGGCCTCTAA	TTGAGGCCTG	GCCTCTGCTG	660
TGGGTGAATT	TCTGTACTGG	AAACTTTTCT	ACCCTGAGTG	CGAGATAAGA	ACGATGGGTG	720
GAAGAGAGCA	ACGCCAGAGC	CCAGGTGCCC	AGAGGACTTT	CTTCCAGCTT	CTGCTGTCCT	780
TCTTTGTGGA	GAGCAAGCTC	CACGACCACG	CTGCTTACTT	AGTAGACAAC	CTGTGGGACT	840
GTGCAGGGAC	TCAGTGAAG	GACTGGGAGG	GTCTGACAAG	CCTGCTGCTG	GAGAAGGACC	900
AGAGCACGTG	CCACATGGAG	CCAGGGCCAG	GGACCTTCCA	CCTCCTAGGG	TGAAACCAGG	960
AGAGATTGCT	TGCTTCACTT	GTACAAGGCA	GGAACGGTGG	CATGGGGTGG	GGGAAACTTG	1020
GAGTTGGAAG	GTGGCTAATC	TTTGATTCTA	TGTTTTTGAT	CCTCCTGGCA	CTCCAGACCT	1080
GGGTGATGTG	CAGGAGAGCA	CACTGATAGA	AATCCTTGTT	TCCAGTGCCC	AGCAACTCCT	1140
GCCTCAGCCT	CCCAGACAGC	TGGGACTACA	GGCGCCCGCC	ACCACGCCTG	GCTAACTTTT	1200
TTGTGTTTTT	AGTAGAGACG	GGTTTTACCC	GTGTTGGCCA	GGATGGTCTT	GATCTCTTGA	1260
CCTTGTGATC	CACCTGCCTC	ATCATCCCAA	AGTGCTGGGA	TTACAGGCGT	GAGCCACTGC	1320
GCCCAGCATG	TTAGACAATT	TTTAATTCAAT	CCTCTCTGTG	CTGTTGTTTT	CTCAGCTGTG	1380
AAAGGAATAT	TCTGGTGGGG	ACAAGGTTAC	AGAGTTGCTG	AGAGGGTCTC	ATGACATGAA	1440
GGTACTGGCC	TTGGCACAGT	GCCTGGGGGG	GCGGGGACTC	CGCACATGCC	TGTGATGTCA	1500
CAGTTACTGT	CAGTTCACAG	CGAACCTTCC	CTCCTTTTCC	TGTTGACTTT	CCCACACTCC	1560
TGTAACCCCTC	CCTCCCTCCC	TTCTTCCTCT	CTCTCTCTCT	CACTCACGCA	CACGCACACA	1620
CACACACACA	CACACACACA	CACACACTCC	ATTCACTGTC	TCCATGACTC	TGGAGTAAAC	1680
TAACGTCTCG	AGTTGCCATT	GGAAGCCCCG	TTGTCTCTAT	TTAGACTTTC	ATGGGTTATA	1740
GGCAGTTTTG	ACTTCCTGGG	GTCTTCTTTC	AGTTAAAGAAA	AAAAATTAGA	AAATTAGGCC	1800
GGGCGTGGTT	GCACATGCCT	GTAATCCACG	ACCTTGGGCC	TCCCAAAGTG	CTGGGATTAC	1860
AGGAGTGAGC	CACCATGCCC	AGCCTCCGTT	GTCCTCATTT	AGACTTTTCT	GGGTTATAGG	1920
CACTTTTGAC	TTCTTGGGGT	CCTTCTTCAG	TTAAAAAAA	AAAAAAA		

SEQ ID NO:10 DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
AGTGGNTCCC	CCGGNCTGCA	GGAATTCGGC	ACGAGATCAT	GATGGCTAAT	ATTCCTGAG	60
CACCTTTCAT	TCAGGCATGA	TGCCAGGTGC	ACCAACTTAC	TTAATCCTCA	TAGCCACCAC	120
CTGAGCAAGC	TCCTGTTTTA	TAAATGGACC	AGTCTTGTT	GCTGTTGTAC	AAGTTATTTT	180
CTTTCTATAA	CGTCCTCCTT	GTCTCCTTTC	CACATTCTTA	AAGAACTTTT	CCCTTCCTTT	240
AAAGTACTCA	GGGAGCCCTG	CATTGCTTCT	TGAAGCCTTC	TCCAGCTTCA	TCATCTCACA	300
GTGGTCTCTC	TTTTCACTAA	ATGTCCAATA	TGCTGCACAT	AAGTACCCCA	AAGTTAGCAC	360
AGGAATTGTT	CCATGGCTGT	CATATATGTT	AAAAATCATT	AAAAGTTCAT	TTTTTCTCTC	420
ATTATGGGAA	GGATACATGC	TCCTACTAGT	AAATTTAGTA	GGTAGAAAAA	AATTATCACT	480
ATCTAGACTG	CTTTCATT	AGTCTTTATG	CATAGCTTTC	GTGTCTGCCT	ATTTTTACCT	540
TGTGTTTGTA	ACTTACTATT	ATAAAATATG	CGTCTCTATG	TTCATTGTCA	ACGATTATTT	600
ACAAATAACAT	GGAGTGGATT	TACATGTATT	CTCTATATTT	GGATTAAAGG	AGATAGAGTA	660
TGTGAAATTA	AATGGGAGAA	GTATCTGATA	CATAACAGGC	AATACAAATA	TTATCACATA	720
GCGTCAATTT	ATTTGTGAAT	ATTGAAAGCT	CCAAAAAAGA	AAAAAAGTTT	TTTTTTAATT	780
CCCGTAATTA	CTTATTGCAG	TATTGTGTTT	ATACAACTG	CTCAGTCATT	TTGGAGAAAT	840
AACAATTTTT	TTCCTCATCA	TGAAGTAAGG	TATGCTCACT	GCAAAAAAAA	TCTAGAAAAT	900
AAAGAGGAAC	ATGCTAAAGA	AAAGAATACT	CCCATATAAT	CTCTGTCTTC	ATAAATAATC	960
TTTTGTAACG	CTTATACACT	GCTGGTGGGA	ATGTAAATTA	GTTCAAGCCAT	TGTGAAAAGT	1020
AGCGTAGCAA	TTCCTTGAAA	AACTTAAAT	AGATTTACCG	TTCAACCCAG	CAATCCCATT	1080
ATTGGGCATA	TACCCAGTGG	AATGTAAATC	ATCCTGCCAT	AAAAACACAT	GCACATGTAT	1140
GTTCAATGCA	GCACTATTCA	CAATAGCAAA	GACATGGAAT	CAACCTATAT	GCCCATCAAT	1200
AGTAGACTGA	ATAAAGAAAA	TATGGTACAT	ATTCAACCACA	GAATACTAAG	CAGCCATAAA	1260
AAAAAA						

SEQ ID NO:11 DNA sequence

Nucleic Acid Accession #: NM_000582.1

Coding sequence: 88-990

1	11	21	31	41	51	
GCAGAGCACA	GCATCGTCGG	GACCAGACTC	GTCTCAGGCC	AGTTGCAGCC	TTCTCAGCCA	60
AACGCCGACC	AAGGAAACT	CACTACCATG	AGAATTGCAG	TGATTTGCTT	TTGCCTCCTA	120
GGCATCACCT	GTGCCATACC	AGTTAAACAG	GCTGATTCTG	GAAGTTCTGA	GGAAAAGCAG	180
CTTTACAACA	AATACCCAGA	TGCTGTGGCC	ACATGGCTAA	ACCCTGACCC	ATCTCAGAAG	240
CAGAATCTCC	TAGCCCCACA	GACCCTTCCA	AGTAAGTCCA	ACGAAAGCCA	TGACCACATG	300
GATGATATGG	ATGATGAAGA	TGATGATGAC	CATGTGGACA	GCCAGGACTC	CATTGACTCG	360
AACGACTCTG	ATGATGTAGA	TGACACTGAT	GATTCTCACC	AGTCTGATGA	GTCTCACCAT	420
TCTGATGAAT	CTGATGAACT	GGTCACTGAT	TTTCCCACGG	ACCTGCCAGC	AACCGAAGTT	480
TTCACTCCAG	TTGTCCCCAC	AGTAGACACA	TATGATGGCC	GAGGTGATAG	TGTGGTTTAT	540
GGACTGAGGT	CAAAATCTAA	GAAGTTTCGC	AGACCTGACA	TCCAGTACCC	TGATGCTACA	600
GACGAGGACA	TCACCTCACA	CATGGAAAAGC	GAGGAGTTGA	ATGGTGCATA	CAAGGCCATC	660
CCCGTTGCCC	AGGACCTGAA	CGCGCCTTCT	GATTGGGACA	GCCGTGGGAA	GGACAGTTAT	720
GAAACGAGTC	AGCTGGATGA	CCAGAGTGCT	GAAACCCACA	GCCACAAGCA	GTCCAGATTA	780
TATAAGCGGA	AAGCCAATGA	TGAGAGCAAT	GAGCATTCCG	ATGTGATTGA	TAGTCAGGAA	840
CTTTCCAAAG	TCAGCCGTGA	ATTCCACAGC	CATGAATTTT	ACAGCCATGA	AGATATGCTG	900
GTTGTAGACC	CCAAAAGTAA	GGAAGAAGAT	AAACACCTGA	AATTTTCGTAT	TTCTCATGAA	960
TTAGATAGTG	CATCTTCTGA	GGTCAATTAA	AAGGAGAAAA	AATACAATTT	CTCACTTTGC	1020
ATTTAGTCAA	AAGAAAAAAT	GCTTTATAGC	AAAAATGAAAG	AGAACATGAA	ATGCTTCTTT	1080
CTCAGTTTAT	TGGTTGAATG	TGTATCTATT	TGAGTCTGGA	AATAACTAAT	GTGTTTGATA	1140
ATTAGTTTAT	TTTGTGGCTT	CATGGAAACT	CCCTGTAAAC	TAAAAGCTTC	AGGGTTATGT	1200
CTATGTTTCAT	TCTATAGAAG	AAATGCAAAAC	TATCACTGTA	TTTTAATATT	TGTTATTCTC	1260
TCATGAATAG	AAATTTATGT	AGAAGCAAAAC	AAAATACTTTT	TACCCACTTA	AAAAGAGAAT	1320
ATAACATTTT	ATGTCACTAT	AATCTTTTGT	TTTTTAAGTT	AGTGTATATT	TTGTTGTGAT	1380
TATCTTTTTG	TGGTGTGAAT	AAATCTTTTA	TCTTGAATGT	AATAAGAATT	TGGTGGTGTG	1440
AATTGCTTAT	TTGTTTTCCC	ACGGTTGTCC	AGCAATTAAT	AAAACATAAC	CTTTTTTACT	1500
GCCTAAAAAA	AAAAAATAAA	AAAA				

SEQ ID NO:12 Protein sequence:
Protein Accession #: NP_000573.1

1	11	21	31	41	51	
MRIAVICFCL	LGITCAIPVK	QADSGSSEBK	QLYNKYPDAV	ATWLNPDPSQ	KQNLLAPQTL	60
PSKSNESHDD	MDDMDEDDDD	DHVDSQDSID	SNDSDDVDDT	DDSHQSDESH	HSDESDELVT	120
DFPTDLPATE	VFTPVVPTVD	TYDGRGDSVV	YGLRSKSKKF	RRPDIQYPDA	TDEDITSHME	180
SEELNGAYKA	IPVAQDLNAP	SDWDSRGKDS	YETSQLDDQS	AETHSHKQSR	LYKRKANDES	240
NEHSDVIDSQ	ELSKVSREFH	SHEFHSHEDM	LVVDPKSKEE	DKHLKFRISH	ELDSASSEVN	

SEQ ID NO:13 DNA sequence
Nucleic Acid Accession #: NM_001793
Coding sequence: 71-2560

1	11	21	31	41	51	
AAAGGGGCAA	GAGCTGAGCG	GAACACCGGC	CCGCCGTCGC	GGCAGCTGCT	TCACCCCTCT	60
CTCTGCAGCC	ATGGGGCTCC	CTCGTGGACC	TCTCGCGTCT	CTCCTCCTTC	TCCAGGTTTG	120
CTGGCTGCAG	TGCGCGGCCT	CCGAGCCGTG	CCGGGCGGTC	TTCAGGGAGG	CTGAAGTGAC	180
CTTGGAGGCG	GGAGGCGCGG	AGCAGGAGCC	CGGCCAGGCG	CTGGGGAAAG	TATTCATGGG	240
CTGCCCTGGG	CAAGAGCCAG	CTCTGTTTAG	CACTGATAAT	GATGACTTCA	CTGTGCGGAA	300
TGGCGAGACA	GTCCAGGAAA	GAAGGTCAC	GAAGGAAAGG	AATCCATTGA	AGATCTTCCC	360
ATCCAAACGT	ATCTTACGAA	GACACAAGAG	AGATTGGGTG	GTTGCTCCAA	TATCTGTCCC	420
TGAAAATGGC	AAGGQTCCT	TCCCCCAGAG	ACTGAATCAG	CTCAAGTCTA	ATAAAGATAG	480
AGACACCAAG	ATTTTCTACA	GCATCACGGG	GCCGGGGGCA	GACAGCCCCC	CTGAGGGTGT	540
CTTCGCTGTA	GAGAAGGAGA	CAGGCTGGTT	GTTGTTGAAT	AAGCCACTGG	ACCGGGAGGA	600
GATTGCCAAG	TATGAGCTCT	TTGGCCACGC	TGTGTCAGAG	AATGGTGCCT	CAGTGGAGGA	660
CCCCATGAAC	ATCTCCATCA	TCGTGACCGA	CCAGAATGAC	CACAAGCCCA	AGTTTACCCA	720
GGACACCTTC	CGAGGGAGTG	TCTTAGAGGG	AGTCCTACCA	GGTACTTCTG	TGATGCAGGT	780
GACAGCCACG	GATGAGGATG	ATGCCATCTA	CACCTACAAT	GGGGTGGTTG	CTTACTCCAT	840
CCATAGCCAA	GAACCAAAGG	ACCCACACGA	CCTCATGTTC	ACCATTACAC	GGAGCACAGG	900
CACCATCAGC	GTCATCTCCA	GTGGCCTGGA	CCGGGAAAAA	GTCCCTGAGT	ACACACTGAC	960
CATCCAGGCC	ACAGACATGG	ATGGGGACCG	CTCCACCACC	ACGGCAGTGG	CAGTAGTGGA	1020
GATCCTTGAT	GCCAAATGACA	ATGCTCCCCT	GTTTGACCCC	CAGAAGTACG	AGGCCCATGT	1080
GCCTGAGAAT	GCAGTGGGCC	ATGAGGTGCA	GAGGCTGACG	GTCACGTATC	TGGACGCCCC	1140
CAACTCACCA	GCGTGGCGTG	CCACCTACCT	TATCATGGGC	GGTGACGACG	GGGACCATT	1200
TACCATCACC	ACCCACCCTG	AGAGCAACCA	GGGCATCCTG	ACAACCAGGA	AGGGTTTGGA	1260
TTTTGAGGCC	AAAAACCAGC	ACACCCTGTA	CGTTGAAGTG	ACCAACGAGG	CCCCTTTTGT	1320
GCTGAAGCTC	CCAACCTCCA	CAGCCACCAT	AGTGGTCCAC	GTGGAGGATG	TGAATGAGGC	1380
ACCTGTGTTT	GTCCCAACCCT	CCAAAGTCGT	TGAGGTCCAG	GAGGGCATCC	CCACTGGGGA	1440
GCCTGTGTGT	GTCTACACTG	CAGAAGACCC	TGACAAGGAG	AATCAAAAGA	TCAGTACCG	1500
CATCCTGAGA	GACCCAGCAG	GGTGGCTAGC	CATGGACCCA	GACAGTGGGC	AGGTCACAGC	1560
TGTGGGCACC	CTCGACCGTG	AGGATGAGCA	GTTTGTGAGG	AACAACATCT	ATGAAGTCAT	1620
GGTCTTGGCC	ATGGACAATG	GAAGCCCTCC	CACCACTGGC	ACGGGAACCC	TTCTGCTAAC	1680
ACTGATTGAT	GTCATGAC	ATGGCCCAGT	CCCTGAGCCC	CGTCAGATCA	CCATCTGCAA	1740
CCAAAGCCCT	GTGCGCCAGG	TGCTGAACAT	CACGGACAAG	GACCTGTCTC	CCCACACCTC	1800
CCCTTTCCAG	GCCCAGCTCA	CAGATGACTC	AGACATCTAC	TGGACGGCAG	AGGTCAACGA	1860
GGAAGGTGAC	ACAGTGGTCT	TGTCCCTGAA	GAAGTTCCTG	AAGCAGGATA	CATATGACGT	1920
GCACCTTTCT	CTGTCTGACC	ATGGCAACAA	AGAGCAGCTG	ACGGTGATCA	GGGCCACTGT	1980
GTGCGACTGC	CATGGCCATG	TCGAAACCTG	CCCTGGACCC	TGGAAGGGAG	GTTTCATCCT	2040
CCCTGTGCTG	GGGGCTGTCC	TGGCTCTGCT	GTTCTCTCTG	CTGGTGCTGC	TTTTGTTGGT	2100
GAGAAAGAAG	CGGAAGATCA	AGGAGCCCCCT	CCTACTCCCA	GAAGATGACA	CCCGTGACAA	2160
CGTCTTCTAC	TATGGCGAAG	AGGGGGGTGG	CGAAGAGGAC	CAGGACTATG	ACATCACCCA	2220
GCTCCACCGA	GGTCTGGAGG	CCAGGCCGGA	GGTGGTTCTC	CGCAATGACG	TGGCACCAAC	2280
CATCATCCCCG	ACACCTCATGT	ACCGTCCTCG	GACGCCAAC	CCAGATGAAA	TCGGCAACTT	2340
TATAATTGAG	AACCTGAAGG	CGGCTAACAC	AGACCCACAC	GCCCCGCCCT	ACGACACCCT	2400
CTTGGTGTTC	GACTATGAGG	GCAGCGGCTC	CGACGCCGCG	TCCCTGAGCT	CCCTCACCTC	2460
CTCCGCCCTC	GACCAAGACC	AAGATTACGA	TTATCTGAAC	GAGTGGGGCA	GCCGCTTCAA	2520
GAAGCTGGCA	GACATGTACG	GTGGCGGGGA	GGACGACTAG	GCGGCCTGCC	TGCAGGGCTG	2580

GGGACCAAAC	GTCAGGCCAC	AGAGCATCTC	CAAGGGGTCT	CAGT'TCCCCC	TTCAGCTGAG	2640
GACTTCGGAG	CTTGT CAGGA	AGTGGCCGTA	GCAACTTGGC	GGAGACAGGC	TATGAGTCTG	2700
ACGTTAGAGT	GGTTGCTTCC	TTAGCCTTTC	AGGATGGAGG	AATGTGGGCA	GTTT GACTTC	2760
AGCACTGAAA	ACCTCTCCAC	CTGGGCCAGG	GTTGCCTCAG	AGGCCAAGTT	TCCAGAAGCC	2820
TCTTACCTGC	CGTAAAATGC	TCAACCCCTGT	GTCTTGGGCC	TGGGCCTGCT	GTGACTGACC	2880
TACAGTGGAC	TTTCTCTCTG	GAATGGAACC	TTCTTAGGCC	TCCTGGTGCA	ACTTAATTTT	2940
TTTTTTTAAAT	GCTATCTTCA	AAACGTTAGA	GAAAGTTCTT	CAAAAGTGCA	GCCCAGAGCT	3000
GCTGGGCCCCA	CTGGCCGTCC	TGCATTTCTG	GTTTCCAGAC	CCCAATGCCT	CCCATTCCGA	3060
TGGATCTCTG	CGTTTTTTATA	CTGAGTGTGC	CTAGGTTGCC	CCTTATTTTTT	TATTTTCCCT	3120
GTTGCGTTGC	TATAGATGAA	GGGTGAGGAC	AATCGTGTAT	ATGTACTAGA	ACTTTTTTAT	3180
TAAAGAAACT	TTTCCCAGAA	AAAAA				

SEQ ID NO:14 Protein sequence:
Protein Accession #: NP_001784.2

1	11	21	31	41	51	
MGLPRGPLAS	LLLLQVCWLQ	CAASEPCRAV	FREA EVTLEA	GGAEQEPGQA	LGKVFMGCPG	60
QEPALFSTDN	DDFTVRNGET	VQERRSLKER	NPLKIFPSKR	ILRRHKRDWV	VAPISVPENG	120
KGPFQRLNQ	LKSNKDRDTK	IFYSITGPGA	DSPPEGVFAV	EKETGWLLLN	KPLDREEIAK	180
YELFGHAVSE	NGASVEDPMN	ISII VTDQND	HKPKFTQDTF	RGSVLEGVLP	GTSMVQVTAT	240
DEDDAIYTYN	GVVAYSISHSQ	EPKDPHDLMF	TIHRSTGTIS	VISSGLDREK	VPEYTLTIQA	300
TDMGDGSGTT	TAVAVVEILD	ANDNAPMFDP	QKYEAHVPEN	AVGHEVQRLT	VTDL DAPNSP	360
AWRATYLIMG	GDDGDHFTIT	THPESNQGIL	TTRKGLDFEA	KNQHTLYVEV	TNEAPFVLKL	420
PTSTATIVVH	VEDVNEAPVF	VPPSKVVEVQ	EGIPTGEPVC	VYTAEDPDKE	NQKISYRILR	480
DPAGWLAMDP	DSGQVTAVGT	LDREDEQFVR	NNIYEVMLA	MDNGSPPTTG	TGTL LLLTLID	540
VNDHGPVPEP	RQITICNQSP	VRQVLNITDK	DLSPHTSPFQ	AQLTDDSDIY	WTAEVNEEGD	600
TVVLSLKKFL	KQDTYDVHLS	LSDHGNKEQL	TVIRATVCDC	HGHVETCPGP	WKGGFILPVL	660
GAVLALLFLL	LVLLLLLVRKK	RKIKEPLLLP	EDDTRDNV FY	YGEEGGGEED	QDYDITQLHR	720
GLEARPEVVL	RNDVAPTIIP	TPMYRPRPAN	PDEIGNFII E	NLKAANTDPT	APPYDTLLVF	780
DYEGSGSDAA	SLSSLTSSAS	DQDQDYDYLN	EWGSRFKKLA	DMYGGGEDD		

SEQ ID NO:15 DNA sequence
Nucleic Acid Accession #: XM_051860.2
Coding sequence: 261-4346

1	11	21	31	41	51	
GAGCTAGCGC	TCAAGCAGAG	CCCAGCGCGG	TGCTATCGGA	CAGAGCCTGG	CGAGCGCAAG	60
CGGCGCGGGG	AGCCAGCGGG	GCTGAGCGCG	GCCAGGGTCT	GAACCCAGAT	TTCCCAGACT	120
AGCTACCACT	CCGCTTGCCC	ACGCCCCGGG	AGCTCGCGGC	GCCTGGCGGT	CAGCGACCAG	180
ACGTCCGGGG	CCGCTGCGCT	CCTGGCCCCG	GAGGCGTGAC	ACTGTCTCGG	CTACAGACCC	240
AGAGGGAGCA	CACTGCCAGG	ATGGGAGCTG	CTGGGAGGCA	GGACTTCCTC	TTCAAGGCCA	300
TGCTGACCAT	CAGCTGGCTC	ACTCTGACCT	GCTTCCCTGG	GGCCACATCC	ACAGTGGCTG	360
CTGGGTGCCC	TGACCAGAGC	CCTGAGTTGC	AACCCTGGAA	CCCTGGCCAT	GACCAAGACC	420
ACCATGTGCA	TATCGGCCAG	GGCAAGACAC	TGCTGCTCAC	CTCTTCTGCC	ACGGTCTATT	480
CCATCCACAT	CTCAGAGGGA	GGCAAGCTGG	TCATTAAAGA	CCACGACGAG	CCGATTGTTT	540
TGCGAACCCG	GCACATCCTG	ATTGACAACG	GAGGAGAGCT	GCATGCTGGG	AGTGCCCTCT	600
GCCCTTTCCA	GGGCAATTTT	ACCATCATTT	TGTATGGAAG	GGCTGATGAA	GGTATT CAGC	660
CGGATCCTTA	CTATGGTCTG	AAGTACATTG	GGGTTGGTAA	AGGAGGCGCT	CTTGAGTTGC	720
ATGGACAGAA	AAAGCTCTCC	TGGACATTTT	TGAACAAGAC	CCTTCACCCA	GGTGGCATGG	780
CAGAAGGAGG	CTATTTTTTT	GAAAGGAGCT	GGGGCCACCG	TGGAGTTATT	GTTCATGTCA	840
TCGACCCCAA	ATCAGGCACA	GTCATCCATT	CTGACCGGTT	TGACACCTAT	AGATCCAAGA	900
AAGAGAGTGA	ACGTATTGTC	CAGTATTGTA	ACGCGGTGCC	CGATGGCAGG	ATCCTTTCTG	960
TTGCAGTGAA	TGATGAAGGT	TCTCGAAATC	TGGATGACAT	GGCCAGGAAG	GCGATGACCA	1020
AATTGGGAAG	CAAACACTTC	CTGCACCTTG	GATTTAGACA	CCCTTGGAGT	TTTCTAACTG	1080
TGAAAGGAAA	TCCATCATCT	TCAGTGGAAG	ACCATATTGA	ATATCATGGA	CATCGAGGCT	1140
CTGCTGCTGC	CCGGGTATTC	AAATTGTTCC	AGACAGAGCA	TGGCGAATAT	TTCAATGTTT	1200
CTTTGTCCAG	TGAGTGGGTT	CAAGACGTGG	AGTGACCGGA	GTGGTTCGAT	CATGATAAAG	1260

TATCTCAGAC	TAAAGGTGGG	GAGAAAATTT	CAGACCTCTG	GAAAGCTCAC	CCAGGAAAAA	1320
TATGCAATCG	TCCCATTGAT	ATACAGGCCA	CTACAATGGA	TGGAGTTAAC	CTCAGCACCG	1380
AGGTTGTCTA	CAAAAAAGGC	CAGGATTATA	GGTTTGCTTG	CTACGACCGG	GGCAGAGCCT	1440
GCCGGAGCTA	CCGTGTACGG	TTCTCTGTG	GGAAGCCTGT	GAGGCCCAA	CTCACAGTCA	1500
CCATTGACAC	CAATGTGAAC	AGCACCATT	TGAACCTGGA	GGATAATGTA	CAGTCATGGA	1560
AACCTGGAGA	TACCCTGGTC	ATTGCCAGTA	CTGATTACTC	CATGTACCAG	GCAGAAGAGT	1620
TCCAGGTGCT	TCCCTGCAGA	TCCTGCGCCC	CCAACCAGGT	CAAAGTGGCA	GGGAAACCAA	1680
TGTACCTGCA	CATCGGGGAG	GAGATAGACG	GCGTGGACAT	GCGGGCGGAG	GTTGGGCTTC	1740
TGAGCCGGA	CATCATAGTG	ATGGGGGAGA	TGGAGGACAA	ATGCTACCCC	TACAGAAACC	1800
ACATCTGCAA	TTTCTTTGAC	TTCGATACCT	TTGGGGGCCA	CATCAAGTTT	GCTCTGGGAT	1860
TTAAGGCAGC	ACACTTGGAG	GGCACGGAGC	TGAAGCATAT	GGGACAGCAG	CTGGTGGGTC	1920
AGTACCCGAT	TCACTTCCAC	CTGGCCGGTG	ATGTAGACGA	AAGGGGAGGT	TATGACCCAC	1980
CCACATACAT	CAGGGACCTC	TCCATCCATC	ATACATTCTC	TCGCTGCGTC	ACAGTCCATG	2040
GCTCCAATGG	CTTGTTGATC	AAGGACGTTG	TGGGCTATAA	CTCTTTGGGC	CACTGCTTCT	2100
TCACGGAAGA	TGGGCCGGAG	GAACGCAACA	CTTTTGACCA	CTGTCTTGGC	CTCCTTGTC	2160
AGTCTGGAAC	CCTCCTCCCC	TCGGACCGTG	ACAGCAAGAT	GTGCAAGATG	ATCACAGAGG	2220
ACTCCTACCC	GGGGTACATC	CCCAAGCCCA	GGCAAGACTG	CAATGCTGTG	TCCACCTTCT	2280
GGATGGCCAA	TCCCAACAAC	AACCTCATCA	ACTGTGCCGC	TGCAGGATCT	GAGGAAACTG	2340
GATTTTGGTT	TATTTTTCAC	CACGTACCAA	CGGGCCCTC	CGTGGGAATG	TACTCCCCAG	2400
GTTATTGAGA	GCACATTCCA	CTGGGAAAAT	TCTATAACAA	CCGAGCACAT	TCCAACCTACC	2460
GGGCTGGCAT	GATCATAGAC	AACGGAGTCA	AAACCACCGA	GGCCTCTGCC	AAGGACAAGC	2520
GGCCGTTCT	CTCAATCATC	TCTGCCAGAT	ACAGCCCTCA	CCAGGACGCC	GACCCGCTGA	2580
AGCCCCGGGA	GCCGGCCATC	ATCAGACACT	TCATTGCCTA	CAAGAACCAG	GACCACGGGG	2640
CCTGGCTGCG	CGGCGGGGAT	GTGTGGCTGG	ACAGCTGCCG	GTTTGCTGAC	AATGGCATTG	2700
GCCTGACCCT	GGCCAGTGGT	GGAACCTTCC	CGTATGACGA	CGGCTCCAAG	CAAGAGATAA	2760
AGAACAGCTT	TTTTGTGGC	GAGAGTGGA	ACGTGGGGAC	GGAAATGATG	GACAATAGGA	2820
TCTGGGGCCC	TGGCGGCTTG	GACCATAGCG	GAAGGACCCT	CCCTATAGGC	CAGAATTTTC	2880
CAATTAGAGG	AATTCAGTTA	TATGATGGCC	CCATCAACAT	CCAAAACCTG	ACTTTCCGAA	2940
AGTTTGTGGC	CCTGGAGGGC	CGGCACACCA	GCGCCCTGGC	CTTCCGCCTG	AATAATGCCT	3000
GGCAGAGCTG	CCCCATAAC	AACGTGACCG	GCATTGCCTT	TGAGGACGTT	CCGATTACTT	3060
CCAGAGTGTT	CTTCGGAGAG	CCTGGGCCCT	GGTTCAACCA	GCTGGACATG	GATGGGGATA	3120
AGACATCTGT	GTTCCATGAC	GTGACGGCT	CCGTGTCCGA	GTACCCTGGC	TCCTACCTCA	3180
CGAAGAATGA	CAACTGGCTG	GTCCGGCACC	CAGACTGCAT	CAATGTTCCC	GACTGGAGAG	3240
GGGCCATTTG	CAGTGGGTGC	TATGCACAGA	TGTACATTCA	AGCCTACAAG	ACCAGTAACC	3300
TGCGAATGAA	GATCATCAAG	AATGACTTCC	CCAGCCACCC	TCTTTACCTG	GAGGGGGCGC	3360
TCACCAGGAG	CACCCATTAC	CAGCAATACC	ACCCGGTTGT	CACCCCTGCAG	AAGGGCTACA	3420
CCATCCACTG	GGACCGAGCG	GCCCCGCGG	AACTCGCCAT	CTGGCTCATC	AACTTCAACA	3480
AGGGCGACTG	GATCCGAGTG	GGGCTCTGCT	ACCCGCGAGG	CACCACATTC	TCCATCCTCT	3540
CGGATGTTCA	CAATCGCCTG	CTGAAGCAAA	CGTCCAAGAC	GGGCGTCTTC	GTGAGGACCT	3600
TGCAGATGGA	CAAAGTGGAG	CAGAGCTACC	CTGGCAGGAG	CCACTACTAC	TGGGACGAGG	3660
ACTCAGGGCT	GTTGTTCCCTG	AAGCTGAAAG	CTCAGAACGA	GAGAGAGAAG	TTTGCTTTCT	3720
GCTCCATGAA	AGGCTGTGAG	AGGATAAAGA	TTAAAGCTCT	GATTCCAAAG	AACGCAGGCG	3780
TCAGTGACTG	CACAGCCACA	GCTTACCCCA	AGTTCACCGA	GAGGGCTGTC	GTAGACGTGC	3840
CGATGCCCAA	GAAGCTCTTT	GGTTCTCAGC	TGAAAACAAA	GGACCATTTT	TTGGAGGTGA	3900
AGATGGAGAG	TTCCAAGCAG	CACCTTCTTC	ACCTCTGGAA	CGACTTCGCT	TACATTGAAG	3960
TGGATGGGAA	GAAGTACCCC	AGTTCCGAGG	ATTGCCATCCA	GGTGGTGGTG	ATTGACGGGA	4020
ACCAAGGGCG	CGTGGTGAGC	CACACGAGCT	TCAGGAATCT	CATTCTGCAA	GGCATAACAT	4080
GGCAGCTTTT	CAACTATGTG	GCGACCATCC	CTGACAATTC	CATAGTGCTT	ATGGCATCAA	4140
AGGGAAGATA	CGTCTCCAGA	GGCCCATGGA	CCAGAGTGCT	GGAAAAGCTT	GGGGCAGACA	4200
GGGGTCTCAA	GTTGAAAGAG	CAAATGGCAT	TCGTTGGCTT	CAAAGGCAGC	TTCCGGCCCA	4260
TCTGGGTGAC	ACTGGACACT	GAGGATCACA	AAGCCAAAAT	CTTCCAAGTT	GTGCCCATCC	4320
CTGTGGTGAA	GAAGAAGAAG	TTGTGAGGAC	AGCTGCCGCC	CGGTGCCACC	TCGTGGTAGA	4380
CTATGACGGT	GACTCTTGGC	AGCAGACCAG	TGGGGGATGG	CTGGGTCCCC	CAGCCCCTGC	4440
CAGCAGCTGC	CTGGGAAGGC	CGTGTTTCAG	CCCTGATGGG	CCAAGGGAAG	GCTATCAGAG	4500
ACCCTGGTGC	TGCCACCTGC	CCCTACTCAA	GTGTCTACCT	GGAGCCCCTG	GGGCGGTGCT	4560
GGCCAATGCT	GGAAACATTC	ACTTTCTGTC	AGCCTCTTGG	GTGCTTCTCT	CCTATCTGTG	4620
CCTCTTCAGT	GGGGTTTTGG	GGACCATATC	AGGAGACCTG	GTTTGTGCTG	ACAGCAAAGA	4680
TCCACTTTGG	CAGGAGCCCT	GACCCAGCTA	GGAGGTAGTC	TGGAGGGCTG	GTCATTACAA	4740
GATCCCCATG	GTCTTCAGCA	GACAAGTGAG	GGTGGTAAAT	GTAGGAGAAA	GAGCCTTGGC	4800
CTTAAGGAAA	TCTTTACTCC	TGTAAGCAAG	AGCCAACCTC	ACAGGATTAG	GAGCTGGGGT	4860
AGAACTGGCT	ATCCTTGGGG	AAGAGGCAAG	CCCTGCCTCT	GGCCGTGTCC	ACCTTTCAGG	4920

AGACTTTGAG	TGGCAGGTTT	GGACTTGGAC	TAGATGACTC	TCAAAGGCCC	TTTTAGTTCT	4980
GAGATTCCAG	AAATCTGCTG	CATTTTCACAT	GGTACCTGGA	ACCCAACAGT	TCATGGATAT	5040
CCACTGATAT	CCATGATGCT	GGGTGCCCCA	GCGCACACGG	GATGGAGAGG	TGAGAACTAA	5100
TGCTTAGCTT	GAGGGGTCTG	CAGTCCAGTA	GGGCAGGCAG	TCAGGTCCAT	GTGCACTGCA	5160
ATGCCAGGTG	GAGAAATCAC	AGAGAGGTAA	AATGGAGGCC	AGTGCCATTT	CAGAGGGGAG	5220
GCTCAGGAAG	GCTTCTTGCT	TACAGGAATG	AAGGCTGGGG	GCATTTTGCT	GGGGGGAGAT	5280
GAGGCAGCCT	CTGGAATGGC	TCAGGGATTG	AGCCCTCCCT	GCCGCTGCCT	GCTGAAGCTG	5340
GTGACTACGG	GGTCGCCCTT	TGCTCACGTC	TCTCTGGCCC	ACTCATGATG	GAGAAGTGTG	5400
GTCAGAGGGG	AGCAATGGGC	TTTGCTGCTT	ATGAGCACAG	AGGAATTCAG	TCCCCAGGCA	5460
GCCCTGCCTC	TGACTCCAAG	AGGGTGAAGT	CCACAGAAGT	GAGCTCCTGC	CTTAGGGCCT	5520
CATTTGCTCT	TCATCCAGGG	AACTGAGCAC	AGGGGGCCTC	CAGGAGACCC	TAGATGTGCT	5580
CGTACTCCCT	CGGCCTGGGA	TTTCAGAGCT	GGAAATATAG	AAAATATCTA	GCCCCAAGCC	5640
TTCATTTTAA	CAGATGGGGA	AAGTGAGCCC	CCAAGATGGG	AAAGAACCAC	ACAGCTAAGG	5700
GAGGGCCTGG	GGAGCCCCAC	CCTAGCCCTT	GCTGCCACAC	CACATTGCCT	CAACAACCGG	5760
CCCCAGAGTG	CCCAGGCACT	CCTGAGGTAG	CTTCTGGAAA	TGGGGACAAG	TCCCTCGAA	5820
GGAAAGGAAA	TGACTAGAGT	AGAATGACAG	CTACGAGATC	TCTTCCCTCC	TGCTCCCAGC	5880
GCACACAAAC	CCGCCCTCCC	CTTGGTGTTG	GCGGTCCCTG	TGGCCTTCAC	TTTGTTCACT	5940
ACCTGTCAGC	CCAGCCTGGG	TGCACAGTAG	CTGCAACTCC	CCATTGGTGC	TACCTGGCTC	6000
TCCTGTCTCT	GCAGCTCTAC	AGGTGAGGCC	CAGCAGAGGG	AGTAGGGCTC	GCCATGTTTC	6060
TGGTGAGCCA	ATTTGGCTGA	TCTTGGGTGT	CTGAACAGCT	ATTGGGTCCA	CCCCAGTCCC	6120
TTTCAGCTGC	TGCTTAATGC	CCTGCTCTCT	CCCTGGCCCCA	CCTTATAGAG	AGCCCCAAGA	6180
GCTCCTGTAA	GAGGGAGAAC	TCTATCTGTG	GTTTATAATC	TTGCACGAGG	CACCAGAGTC	6240
TCCCTGGGTC	TTGTGATGAA	CTACATTTAT	CCCCTTTCCT	GCCCCAACCA	CAAACCTCTT	6300
CCTTCAAAGA	GGGCCTGCCT	GGCTCCCTCC	ACCCAATGCT	ACCCATGAGA	CTCGGTCCAA	6360
GAGTCCATTC	CCCAGGTGGG	AGCCAACTGT	CAGGGAGGTC	TTTCCCACCA	AACATCTTTC	6420
AGCTGCTGGG	AGGTGACCAT	AGGGCTCTGC	TTTTAAAGAT	ATGGCTGCTT	CAAAGGCCAG	6480
AGTCACAGGA	AGGACTTCTT	CCAGGGAGAT	TAGTGGTGAT	GGAGAGGAGA	GT'TAAATGA	6540
CCTCATGTCC	TTCTTGTTCA	CGGTTTTGTT	GAGTTTTTAC	TCTTCTAATG	CAAGGGTCTC	6600
ACACTGTGAA	CCACTTAGGA	TGTGATCACT	TTCAGGTGGC	CAGGAATGTT	GAATGTCTTT	6660
GGCTCAGTTC	ATTTAAAAAA	GATATCTATT	TGAAAGTTCT	CAGAGTTGTA	CATATGTTTC	6720
ACAGTACAGG	ATCTGTACAT	AAAAGTTTCT	TTCCTAAACC	ATTCACCAAG	AGCCAATATC	6780
TAGGCATTTT	CTTGGTAGCA	CAAATTTTCT	TATTGCTTAG	AAAATTGTCC	TCCTTGTTAT	6840
TTCTGTTTGT	AAGACTTAAG	TGAGTTAGGT	CTTTAAGGAA	AGCAACGCTC	CTCTGAAATG	6900
CTTGTCTTTT	TTCTGTTGCC	GAAATAGCTG	GTCCTTTTTC	GGGAGTTAGA	TGTATAGAGT	6960
GTTTGTATGT	AAACATTTCT	TGTAGGCATC	ACCATGAACA	AAGATATATT	TTCTATTTAT	7020
TTATTATATG	TGCACTTCAA	GAAGTCACTG	TCAGAGAAAT	AAAGAATTGT	CTTAAATGTC	

SEQ ID NO:16 Protein sequence:
Protein Accession #: XP_051860.2

1	11	21	31	41	51	
MGAAGRQDFL	FKAMLTISWL	TLTCFPGATS	TVAAGCPDQS	PELQPWNPGH	DQDHHVHIGQ	60
GKTLTLLTSSA	TVYSIHISEG	GKLVIKDHDH	PIVLRTRHIL	IDNGGELHAG	SALCPFQGNF	120
TIILYGRADE	GIQPDPIYGL	KYIGVGKGGG	LELHGQKKLS	WTFLNKTLHP	GGMAEGGYFF	180
ERSWGHGRGVI	VHVIDPKSGT	VIHSDRFDTY	RSKKESERLV	QYLNAPDGR	ILSVAVNDEG	240
SRNLDDMARK	AMTKLGSKHF	LHLGFRHPWS	FLTVKGNPSS	SVEDHIEYHG	HRGSAAARVF	300
KLFQTEHGEY	FNVSLSSEWV	QDVEWTEWFD	HDKVSQTKGG	EKISDLWKAH	PGKICNRPID	360
IQATTMDGVN	LSTEVVYKKG	QDYRFACYDR	GRACRSYRVR	FLCGKPVPRK	LTVTIDTNVN	420
STILNLEDNV	QSWKPGDTLV	IASTDYSMYQ	AEEFQVLPGR	SCAPNQVKVA	GKPMYLHIGE	480
EIDGVDMAE	VGLLSRNIIIV	MGEMEDKCYP	YRNHICNFFD	FDTFGGHIKF	ALGFKAAHLE	540
GTELKHMGGQ	LVGQYPIHFH	LAGDVDERGG	YDPPTYIRDL	SIHHTFSRCV	TVHGSNGLLI	600
KDVVGYNLSG	HCFFTEDGPE	ERNTFDHCLG	LLVKSGTLLP	SDRDSKMCKM	ITEDSYPGYI	660
PKPRQDCNAV	STFWMANPNN	NLINCAAAGS	EETGFWFIFH	HVPTGPSVGM	YSPGYSEHIP	720
LGFYNNRAH	SNYRAGMIID	NGVKTTEASA	KDKRPFLSII	SARYSPHQDA	DPLKPREPAI	780
IRHFIAYKNQ	DHGAWLRGGD	VWLDSCRFA	NGIGLTLASG	GTFPYDDGSK	QEIKNSLFVG	840
ESGNVGTEMM	DNRIWPGGGL	DHSGRTLPIG	QNFPPIRGIQL	YDGPINIQNC	TFRKFVALEG	900
RHTSALAFRL	NNAWQSCPHN	NVTGIAFEDV	PITSRVFFGE	PGPWFNQJLD	DGDKTSVFHD	960
VDGSVSEYPG	SYLTKNNDNL	VRHPDCINVP	DWRGAICSGC	YAQMYIQAYK	TSNLRMKIIK	1020
NDFPSHPLYL	EGALTRSTHY	QQYQPVVTLQ	KGYTIHWDQT	APAEIAIWL	NFNKGDWIRV	1080

GLCYPRGTTT	SILSDVHNRL	LKQTSKTGVF	VRTLQMDKVE	QSYPGRSHYY	WDEDSGLLFL	1140
KLKAQNEREK	FAFCSMKGCE	RIKIKALIPK	NAGVSDCTAT	AYPKFTERAV	VDVPMPPKKLF	1200
GSQKTKDHF	LEVKMESSKQ	HFFHLWNDFA	YIEVDGKKYP	SSEDGIQVVV	IDGNQGRVVS	1260
HTSFRNSILQ	GIPWQLFNIV	ATIPDNSIVL	MASKGRYVSR	GPWTRVLEKL	GADRGLKLKE	1320
QMAFVGFKGS	FRPIWVTLDT	EDHKAKIFQV	VPIPVVKKKK	L		

SEQ ID NO:17 DNA sequence

Nucleic Acid Accession #: NM_015515.1

Coding sequence: 61-1329

1	11	21	31	41	51	
AGTTCTGCGG	TGCCAGGGAG	TGGAGCAGAG	CTCAGCCCCG	TCCCAAACAC	AGATGGGACC	60
ATGAACTCCG	GACACAGCTT	CAGCCAGACC	CCCTCGGCCT	CCTTCCATGG	CGCCGGAGGT	120
GGCTGGGGCC	GGCCAGGAG	CTTCCCCAGG	GCTCCCACCG	TCCATGGCGG	TGCGGGGGGA	180
GCCCCGATCT	CCCTGTCTTT	CACCACGCGG	AGCTGCCCCAC	CCCCCTGGAGG	GTCTTGGGGT	240
TCTGGAAGAA	GCAGCCCCCT	ACTAGGCGGA	AATGGGAAGG	CCACCATGCA	GAATCTCAAC	300
GACCGCCTGG	CCTCCTACCT	GGAGAAGGTT	CGCGCCCTGG	AGGAGGCCAA	CATGAAGCTG	360
GAAAGCCGCA	TCCTGAAATG	GCACCAGCAG	AGAGATCCTG	GCAGTAAGAA	AGATTATTCC	420
CAGTATGAGG	AAAACATCAC	ACACCTGCAG	GAGCAGATAG	TGGATGGTAA	GATGACCAAT	480
GCTCAGATTA	TTCTTCTCAT	TGACAATGCC	AGGATGGCAG	TGGATGACTT	CAACCTCAAG	540
TATGAAAATG	AACACTCCTT	TAAGAAAGAC	TTGGAAATTG	AAGTCGAGGG	CCTCCGAAGG	600
ACCTTAGACA	ACCTGACCAT	TGTCACAACA	GACCTAGAAC	AGGAGGTGGA	AGGAATGAGG	660
AAAGAGCTCA	TTCTCATGAA	GGAGCACCAT	GAGCAGGAAA	TGGAGGAGCA	TCATGTGCCA	720
AGTGACTTCA	ATGTCAATGT	GAAGGTGGAT	ACAGGTCCCA	GGGAAGATCT	GATTAAGGTC	780
CTGGAGGATA	TGAGACAAGA	ATATGAGCTT	ATAATAAAGA	AGAAGCATCG	AGACTTGGAC	840
ACTTGGTATA	AAGAACAGTC	TGCAGCCATG	TCCCAGGAGG	CAGCCAGTCC	AGCCACTGTG	900
CAGAGCAGAC	AAGGTGACAT	CCACGAACTG	AAGCGCACAT	TCCAGGCCCT	GGAGATTGAC	960
CTGCAGGCAC	AGTACAGCAC	GAAATCTGCT	TTGGAAAACA	TGTTATCCGA	GACCCAGTCT	1020
CGGTACTCCT	GCAAGCTCCA	GGACATGCAA	GAGATCATCT	CCCCTATGA	GGAGGAACTG	1080
ACGCAGCTAC	GCCACGAACT	GGAGCGGCAG	AACAATGAAT	ACCAAGTGCT	GCTGGGCATC	1140
AAAACCCACC	TGGAGAAGGA	AATCACCACG	TACCGACGGC	TCCTGGAGGG	AGAGAGTGAA	1200
GGGACACGGG	AAGAATCAAA	GTGAGCATTA	AAAGTGCTTG	CAACTCCAAA	GATCAAGGCC	1260
ATAACCCAGG	AGACCATCAA	CGGAAGATTA	GTTCTTTGTC	AAGTGAATGA	AATCCAAAAG	1320
CACGCAATGAG	ACCAATGAAA	GTTTCCGCCT	TTGTAAAGT	CTATTTTCCC	CCAAGGAAAG	1380
TCCTTGACACA	GACACCATG	AGTGAGTTCT	AAAAGATACC	CTTGGAATTA	TCAGACTCAG	1440
AAACTTTTAT	TTTTTTTTTT	CTGTAACAGT	CTCACCAGAC	TTCTCATAAT	GCTCTTAATA	1500
TATTGCACTT	TTCTAATCAA	AGTGCGAGTT	TATGAGGGTA	AAGCTCTACT	TTCCTACTGC	1560
AGCCTTCAGA	TTCTCATCAT	TTTGCATCTA	TTTTGTAGCC	AATAAACTC	CGCACTAGC	

SEQ ID NO:18 Protein sequence:

Protein Accession #: NP_056330.1

1	11	21	31	41	51	
MNSGHSFSQT	PSASFHGAGG	GWGRPRSFPR	APTVHGGAGG	ARISLSFTTR	SCPPPGGSWG	60
SGRSSPLLGG	NGKATMQNLN	DRLASYLEKV	RALEEANMKL	ESRILKWHQQ	RDPGSKKDYS	120
QYEENITHLQ	EQIVDGKMTN	AQIILLIDNA	RMAVDDFNLK	YENEHSFKKD	LEIEVEGLRR	180
TLDNLTIVTT	DLEQEVEGMR	KELILMKEHH	EQEMEEHHVP	SDFNVNVKVD	TGPREDLIKV	240
LEDMRQEYEL	IIKKKHRDL	TWYKEQSAAM	SQEAASPATV	QSRQGDIEL	KRTFQALEID	300
LQAQYSTKSA	LENMLSETQS	RYSCKLQDMQ	EIISHYEEEL	TQLRHELERQ	NNEYQVLLGI	360
KTHLEKEITT	YRRLLGESE	GTREESKSSM	KVSATPKIKA	ITQETINGRL	VLCQVNEIQK	420

HA

SEQ ID NO:19 DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
TTTTTTTTTT	TTAAAAAAA	GAGGCTTGGT	AAGTTTTTGA	TACTTAGTTG	ACTTTTAGCA	60
TTATCCAGCA	TTTGTATTAT	GAACCAGTGA	GTACTGTAAT	TTTTCTTTCC	CTTTCAGAAA	120
GACTCAAAGG	GAACATATAA	ATGTTTCCTA	TTTTTNNNNN	NNNNNNNNNN	NNNNNNNNNN	180
NNNNACCCAT	CGTGCGATGA	TCNNNNNNNN	NNNNNNNNNN	NNNNNTTGGG	ATCCAGTTTC	240
AAATAAGGTA	TGGGAAAAAC	AGATGTTTTT	ATTATCGCCA	CTTAATCCTT	ACTTCCGATT	300
ATAATTATAC	ATGTTTGGCT	GTAATAACTA	TACTAAAGCA	TGCTTGTGAA	AGTAGACTTC	360
TACAAGGACA	GAAAAACCAC	AACAACAAAG	ATCGATCACG	AAAGACAAGG	CATATTCATT	420
CATTAATTTA	CTTCTCTTAG	ACCCGGGACA	TGTGGGACAA	ATACTTTTGT	CCTCATGGAT	480
GGCTTGATAA	TTTATTTATA	TGTTCTAGAG	TCTGAGGATT	TTCTTTCAGT	GGCAGACAAC	540
AAAGGATGTT	ACAATTACT	TCAAATAAAT	ACAATCATGG	TTTAATTAC	AGTGTAATC	600
CATAACTATT	TTATAGAGAT	GGATTATCAT	ACATGGGATT	ATAAAAAATA	CTTACCCATA	660
TGCTTGCAAA	ATAGACTTTT	CCTATTGGGA	GGAACATCTT	TTAACCTAAA	ACGGATTTAT	720
TTCAGATGAA	TTAGACAGTA	CATTTTTCAG	GAGAACCAGC	CTTACTGGAT	GATCTTTTGT	780
CAGGTTTGA	GGCCTCTTCT	TTGTCTTTGC	AACCATAACC	CCTTTTCAGC	TGAAGACCAC	840
TGGCCTTCAA	CCCAAGCCAG	GAGTTTGGCT	CAAATGA			

SEQ ID NO:20 DNA sequence

Nucleic Acid Accession #: D32051.1

Coding sequence: 72-1373

1	11	21	31	41	51	
GAATTTCGAAC	CAGGTGGCCA	CCCGGTGTCG	GTTTCATTTT	CCTTTGGAAT	TTCTGCTTTA	60
CAGACAGAAC	AATGGCAGCC	CGAGTACTTA	TAATTGGCAG	TGGAGGAAGG	GAACATACGC	120
TGGCCTGGAA	ACTTGCACAG	TCTCATCATG	TCAAACAAGT	GTTGGTTGCC	CCAGGAAACG	180
CAGGCACTGC	CTGCTCTGAA	AAGATTTCAA	ATACCGCCAT	CTCAATCAGT	GACCACACTG	240
CCCTTGCTCA	ATTCTGCAAA	GAGAAGAAAA	TTGAATTTGT	AGTTGTTGGA	CCAGAAGCAC	300
CTCTGGCTGC	TGGGATTGTT	GGGAACCTGA	GGTCTGCAGG	AGTGCAATGC	TTTGGCCCAA	360
CAGCAGAAGC	GGCTCAGTTA	GAGTCCAGCA	AAAGGTTTGC	CAAAGAGTTT	ATGGACAGAC	420
ATGGAATCCC	AACCGCACAA	TGGAAGGCTT	TCACCAAAACC	TGAAGAAGCC	TGCAGCTTCA	480
TTTTGAGTGT	AGACTTCCCT	GCTTTGGTTG	TGAAGGCCAG	TGGTCTTGCA	GCTGGAAAAG	540
GGGTGATTGC	TGCAAGAGAG	AAAGAAGAGG	CCTGCAAAAG	TGTACAAGAG	ATCATGCAGG	600
AGAAAGCCTT	TGGGGCAGCT	GGAGAAACAA	TTGTCAATTGA	AGAACTTCTT	GACGGAGAAG	660
AGGTGTCGTG	TCTGTGTTTC	ACTGATGGCA	AGACTGTGGC	CCCCATGCCC	CCAGCACAGG	720
ACCATAAGCG	ATTACTGGAG	GGAGATGGTG	GCCCTAACAC	AGGGGGAATG	GGAGCCTATT	780
GTCCAGCCCC	TCAGGTTTCT	AATGATCTAT	TACTAAAAAT	TAAAGATACT	GTTCTTCAGA	840
GGACAGTGGA	TGGCATGCAG	CAAGAGGGTA	CTCCATATAC	AGGTATTCTC	TATGCTGGAA	900
TAATGCTGAC	CAAGAATGGC	CCAAAAGTTC	TAGAGTTTAA	TTGCCGTTTT	GGTGATCCAG	960
AGTGCCAAGT	AATCCTCCCA	CTTCTTAAAA	GTGATCTTTA	TGAAGTGATT	CAGTCCACCT	1020
TAGATGGACT	GCTCTGCACA	TCTCTGCCTG	TTTGGCTAGA	AAACCACACC	GCCCTAACTG	1080
TTGTCATGGC	AAGTAAAGGT	TATCCTGGAG	ACTACACCAG	GGGTGTAGAG	ATAACAGGGT	1140
TTCTTGAGGC	TCAAGCTCTA	GGACTGGAGG	TGTCCCATGC	AGGCACTGCC	CTCAAAAATG	1200
GCAAAGTAGT	AACCTATGGG	GGTAGAGTTC	TTGCAGTCAC	AGCCATCCGG	GAAAATCTCA	1260
TATCAGCCCT	TGAGGAAGCC	AAGAAAGGAC	TAGCTGCTAT	AAAGTTTGAG	GGAGCAATTT	1320
ATAGGAAAGA	CATCGGCTTT	CGTGCCATAG	CTTTCCTCCA	GCAGCCCAGG	TAAACTCTTA	1380
AGCAAGTTAG	CTGTAGTGCC	ATTTTCAGAAA	CTGGCCTAAA	TGGCTATGTA	GAACATTCCA	1440
TTAACCCTAT	AAGTCATTCA	GTATTCTTTT	CTCTCTGTGG	GAGTGATACA	GTCTTGGTTT	1500
GTATTTTGTT	TGAATCAAAA	CTGGTTATAG	CAATACTCAA	ATGGAAAAAA	CTTCATGATA	1560
GCGTAAGTTT	GGAAAGTTTA	GCAAAATCAC	AGTGGTACTG	ATTTTTATTT	GTTTTCTATT	1620
TTTTTTATTT	TATATTTTTA	ATTTTTTTAA	CAGGGTCTTC	CTCTCTCGCC	CAAGTTCTCA	1680
TGCCTCAGCC	TCCCAATAG	CTGGGACTAC	AGGCACAGGC	CACCACACCT	GGCTAATTTT	1740
TTTGTATTTT	TTGTGGAGAT	GGGGTTTCACC	ATGTTGCCAA	GGCCAGTCTG	AAAGCCTGGG	1800
CTCAAGTGAT	CCTCCTGCTT	TGGCCTCCCA	AAATGCTGGG	ACTATAGGCA	TGAGGCGCTG	1860
CAC TTGGCCT	GATACTGATT	TTTATTCCTT	GCGTTATCAC	ATAGTGTTGT	ATTTGAAACA	1920
TAGTTCATGG	TTTTATCAAA	GAAGTGAAGA	TGAGAATACT	GGTCATCTAA	CTTTGTAATT	1980

TGATTTGATT	ATACTGTAAA	GTTTGACAGT	CCCATTTTAA	CCTGCGTTTG	TATCTATTAC	2040
TAAAATGTAT	TTTTTGACCT	CTTACTGATT	CATGGTTGGT	ATGTACAAAC	TGTTGACTTG	2100
TAAAATCAAT	AAAGTCTTAG	TTGG				

SEQ ID NO:21 Protein sequence:
Protein Accession #: BAA06809.1

1	11	21	31	41	51	
MAARVLIIGS	GGREHTLAWK	LAQSHHVQV	LVAPGNAGTA	CSEKISNTAI	SISDHTALAQ	60
FCKEKKIEFV	VVGPEAPLAA	GIVGNLRSAG	VQCFGPTEAE	AQLESSKRFA	KEFMDRHHGIP	120
TAQWKAF TKP	EEACSFILSA	DFPALVVKAS	GLAAGKGVIV	AKSKEEACKA	VQEIMQECAF	180
GAAGETIVIE	ELLDGEEVSC	LCFTDGKTVA	PMPPAQDHKR	LLEGDGGPNT	GGMGAYCPAP	240
QVSNLLLLKI	KDTVLQRTVD	GMQQEGTPYT	GILYAGIMLT	KNGPKVLEFN	CRFGDPECQV	300
ILPLLKSDLY	EVIQSTLDGL	LCTSLPVWLE	NHTALTVMMA	SKGYPGDYTK	GVEITGFPEA	360
QALGLEVSHA	GTALKNGKV	THGGRVLAVT	AIRENLISAL	EEAKKGLAAI	KFEGAIYRKD	420
IGFRAIAFLQ	QPR					

SEQ ID NO:22 DNA sequence
Nucleic Acid Accession #: EOS cloned
Coding sequence: 1-2424

1	11	21	31	41	51	
ATGCCCCCTT	TCCTGTTGCT	GGAGGCCGTC	TGTGTTTTCC	TGTTTTCCAG	AGTGCCCCCA	60
TCTCTCCCTC	TCCAGGAAGT	CCATGTAAGC	AAAGAAACCA	TCGGGAAGAT	TTCAGCTGCC	120
AGCAAAATGA	TGTGGTGCTC	GGCTGCAGTG	GACATCATGT	TTCTGTTAGA	TGGGTCTAAC	180
AGCGTCGGGA	AAGGGAGCTT	TGAAAGGTCC	AAGCACTTTG	CCATCACAGT	CTGTGACGGT	240
CTGGACATCA	GCCCCGAGAG	GGTCAGAGTG	GGAGCATTCC	AGTTCAGTTC	CACTCCTCAT	300
CTGGAATTCC	CCTTGATTTC	ATTTTCAACC	CAACAGGAAG	TGAAGGCAAG	AATCAAGAGG	360
ATGGTTTTCA	AAGGAGGGCG	CACGGAGACG	GAACCTTGCTC	TGAAATACCT	TCTGCACAGA	420
GGGTTGCCTG	GAGGCAGAAA	TGCTTCTGTG	CCCCAGATCC	TCATCATCGT	CACTGATGGG	480
AAGTCCCAGG	GGGATGTGGC	ACTGCCATCC	AAGCAGCTGA	AGGAAAGGGG	TGTCACCTGTG	540
TTTGCTGTGG	GGGTCAGGTT	TCCCAGGTGG	GAGGAGCTGC	ATGCACTGGC	CAGCGAGCCT	600
AGAGGGCAGC	ACGTGCTGTT	GGCTGAGCAG	GTGGAGGATG	CCACCAACGG	CCTCTTCAGC	660
ACCCTCAGCA	GCTCGGCCAT	CTGCTCCAGC	GCCACGCCAG	ACTGCAGGGT	CGAGGCTCAC	720
CCCTGTGAGC	ACAGGACGCT	GGAGATGGTC	CGGGAGTTCG	CTGGCAATGC	CCCATGCTGG	780
AGAGGATCGC	GGCGGACCCT	TGCGGTGCTG	GCTGCACACT	GTCCCTTCTA	CAGCTGGAAG	840
AGAGTGTTCC	TAACCCACCC	TGCCACCTGC	TACAGGACCA	CCTGCCCAGG	CCCCTGTGAC	900
TCGCAGCCCT	GCCAGAATGG	AGGCACATGT	GTTCCAGAAG	GACTGGACGG	CTACCAAGTGC	960
CTCTGCCCCG	TGGCCTTTGG	AGGGGAGGCT	AACTGTGCCC	TGAAGCTGAG	CCTGGAATGC	1020
AGGGTCGACC	TCCTCTTCCT	GCTGGACAGC	TCTGCGGGCA	CCACTCTGGA	CGGCTTCCTG	1080
CGGGCCAAAG	TCTTCGTGAA	GCGGTTTGTG	CGGGCCGTGC	TGAGCGAGGA	CTCTCGGGCC	1140
CGAGTGGGTG	TGGCCACATA	CAGCAGGGAG	CTGCTGGTGG	CGGTGCCTGT	GGGGGAGTAC	1200
CAGGATGTGC	CTGACCTGGT	CTGGAGCCTC	GATGGCATTC	CCTTCCGTGG	TGGCCCCACC	1260
CTGACGGGCA	GTGCCTTGCG	GCAGGCGGCA	GAGCGTGGCT	TCGGGAGCGC	CACCAGGACA	1320
GGCCAGGACC	GGCCACGTAG	AGTGGTGGTT	TTGCTCACTG	AGTCACACTC	CGAGGATGAG	1380
GTTGCGGGCC	CAGCGCGTCA	CGCAAGGGCG	CGAGAGCTGC	TCCTGCTGGG	TGTAGGCAGT	1440
GAGGCCGTGC	GGGCAGAGCT	GGAGGAGATC	ACAGGCAGCC	CAAAGCATGT	GATGGTCTAC	1500
TCGGATCCTC	AGGATCTGTT	CAACCAAATC	CCTGAGCTGC	AGGGGAAGCT	GTGCAGCCGG	1560
CAGCGGCCAG	GGTGCCGGAC	ACAAGCCCTG	GACCTCGTCT	TCATGTTGGA	CACCTCTGCC	1620
TCAGTAGGGC	CCGAGAATTT	TGCTCAGATG	CAGAGCTTTG	TGAGAAGCTG	TGCCCTCCAG	1680
TTTGAGGTGA	ACCCTGACGT	GACACAGGTC	GGCCTGGTGG	TGTATGGCAG	CCAGGTGCAG	1740
ACTGCCTTCG	GGCTGGACAC	CAAACCCACC	CGGGCTGCGA	TGCTGCGGGC	CATTAGCCAG	1800
GCCCCCTACC	TAGGTGGGGT	GGGCTCAGCC	GGCACC GCCC	TGCTGCACAT	CTATGACAAA	1860
GTGATGACCG	TCCAGAGGGG	TGCCCCGCCCT	GGTGTCCCCA	AAGCTGTGGT	GGTGCTCACA	1920
GGCGGGAGAG	GCGCAGAGGA	TGCAGCCGTT	CCTGCCCAGA	AGCTGAGGAA	CAATGGCATC	1980
TCTGTCTTGG	TCGTGGGCGT	GGGGCCTGTC	CTAAGTGAGG	GTCTGCGGAG	GCTTGCAAGT	2040
CCCCGGGATT	CCCTGATCCA	CGTGGCAGCT	TACGCCGACC	TGCGGTACCA	CCAGGACGTG	2100

CTCATTGAGT	GGCTGTGTGG	AGAAGCCAAG	CAGCCAGTCA	ACCTCTGCAA	ACCCAGCCCCG	2160
TGCATGAATG	AGGGCAGCTG	CGTCCTGCAG	AATGGGAGCT	ACCGCTGCAA	GTGTCGGGAT	2220
GGCTGGGAGG	GCCCCCACTG	CGAGAACCGT	GAGTGGAGCT	CTTGCTCTGT	ATGTGTGAGC	2280
CAGGGATGGA	TTCTTGAGAC	GCCCCTGAGG	CACATGGCTC	CCGTGCAGGA	GGGCAGCAGC	2340
CGTACCCCTC	CCAGCAACTA	CAGAGAAGGC	CTGGGCACTG	AAATGGTGCC	TACCTTCTGG	2400
AATGTCTGTG	CCCCAGGTCC	TTAG				

SEQ ID NO:23 Protein sequence:
Protein Accession #: EOS cloned

1	11	21	31	41	51	
MPPFLLLEAV	CVFLFSRVPP	SLPLQEVHVS	KETIGKISAA	SKMMWCSAAV	DIMFLLDGSN	60
SVGKGSPERS	KHFAITVCDG	LDISPERVRV	GAFQFSSTPH	LEFPLDSFST	QQEVKARIKR	120
MVFKGGRJET	ELALKYLLHR	GLPGGRNASV	PQILIIIVTDG	KSQGDVALPS	KQLKERGVTV	180
FAVGVRFPFW	EELHALASEP	RQGHVLLAEQ	VEDATNGLFS	TLSSSAICSS	ATPDCRVEAH	240
PCEHRTLEMV	REFAGNAPCW	RGSRRTLAVL	AAHCPFYSWK	RVFLTHPATC	YRTTCPGPCD	300
SQPCQNGGTC	VPEGLDGYQC	LCPLAFGGEA	NCALKLSLEC	RVDLLFLLDS	SAGTTLDGFL	360
RAKVFKRFV	RAVLSEDSRA	RVGVATYSRE	LLVAVPVGEY	QDVDPDLVWSL	DGIPFRGGPT	420
LTGSALRQAA	ERGFSGATRT	GQDRPRRVVV	LLTESHSEDE	VAGPARHARA	RELLLLGVGS	480
EAVRAELEEI	TGSPKHVMVY	SDPQDLFNQI	PELQGKLCSR	QRPGCRTQAL	DLVFMLD TSA	540
SVGPENFAQM	QSFVRSCALQ	FEVNPDTVQV	GLVVYGSQVQ	TAFGLDTKPT	RAAMLRAISQ	600
APYLGGVGSA	GTALLHIYDK	VMTVQRGARP	GVPKAVVVLV	GGRGAEDAAV	PAQKLNRNGI	660
SVLVVGVGPV	LSEGLRRLAG	PRDSLIHVAA	YADLRYHQDV	LIEWLCGEAK	QPVNLCKPSP	720
CMNEGSCVLQ	NGSYRCKCRD	GWEGPHCENR	EWSSCSVCVS	QGWILETPLR	HMAPVQEGSS	780
RTPPSNYREG	LGTEMVPTFW	NVCAPGP				

SEQ ID NO:24 DNA sequence
Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
AGGTGGGCTG	GTTATCGGGA	GTTGGAGGGC	TGAGGTCTGGG	AGGGTGGTGT	GTACAGAGCT	60
CTAGGACTCA	CGCACCAGGC	CAGTCGCGGG	TTTTGGGCCG	AGGCCTGGGT	TACAAGCAGC	120
AAGTGC GCGG	TTGGGGCCAC	TGCGAGGCCG	TTTTAGAAAA	CTGTTTAAAA	CAAAGAGCAA	180
TTGATGGATA	ATCAGGAAT	AGATTCTCTT	GACCATGTGA	CATCTGATGC	TGTGGAACCT	240
GCAAATCGAA	GTGATAACTC	TTCTGATAGC	AGCTTATTTA	AAACTCAGTG	TATCCCTTAC	300
TCACCTAAAG	GGGAGAAAAG	AAACCCCAT	CGAAAAATTTG	TTCGTACACC	TGAAAGTGTT	360
CACGCAAGTA	TTCATCAAGT	GACTCATCTT	TTGAACCACT	ACCATTGACT	ATAAAAGCTA	420
TTTTTTGAAAG	ATTCAAGAAC	AGGAAAAAGA	GATATAAAAA	AAAGAAAAAG	AGGAGGTACC	480
AGCCAACAGG	AAGACCACGG	GGAAGACCAG	AAGGAAGGAG	AAATCCTATA	TACTACTATA	540
TAGATAAGAA	GAAACAATTT	AGAAGCAGAG	GATCTGGCTT	CCCATTTTTA	GAATCAGAGA	600
ATGAAAAAAA	CGCACCTTGG	AGAAAAATTT	TAACGTTTGA	GCAAGCTGTT	GCAAGAGGAT	660
TTTTTAAC TA	TATTGAAAAA	CTGAAGTATG	AACACCACCT	GAAAGAATCA	TTGAAGCAAA	720
TGAATGTTGG	TGAAGATTTA	GAAAATGAAG	ATTTTGACAG	TCGTAGATAC	AAATTTTTTG	780
ATGATGATGG	ATCCATTTCT	CCTATTGAGG	AGTCAACGCT	TTTATCTTGA	GGACATGGTG	840
TCTGGAGTTA	AAGGTATTGG	CATACTCCAC	ACATCTGTAC	CATTCTTGAG	TGATCGCTTA	900
GGAATGAATG	TGATTTGGAC	TCATTCATGT	ATGAGAGTAA	GCAATGCTTT	TTTTTCCAGG	960
GTGTCAAATT	GAGAACCAGG	TAGATCCCCA	CCACCTACAG	TAAAAAGGAC	CCTAAAGTAA	1020
ATTGGTTGAA	GAAATTAGAT	CCCAAAGATT	CTTGGTGAAT	TTTGAAGTCT	TCATCAGTAT	1080
ATCCATATTA	AAACGAGATG	ACAGAAGCCA	AAGTAATTAT	GGGCTGACAG	GACAACTGGA	1140
TCAGTTTCAT	TAAAAAGGGC	AAACTTGAAG	ATAAATCTTT	TGACTCCAGC	TCTTTAGAGG	1200
ATCTAAAGTG	ACCTTGATGG	ACAGTGGAAG	AAATCACAAAC	ATGGAATTCC	TCAATAAACA	1260
ATTTATTGAC	TTTAAATAAT	TTTGTCTAAT	GCTACATATA	CACAATTAAA	AAACCTTTAC	1320
ACTATTTCTA	GAAAGTCAGC	ATGTATTTTT	GGCTCGAAGT	TTCTCTAGTG	TTTTCTGTGG	1380
AAGGAATAAA	AATTTGAGGT	TTCAATACAA	AAACAAAACA	AACAACACGA	AACACGAAAA	1440
ACAATCTGTT	GTGCGGCGCC	CCTGGGCCCC	TTGAGAGAAA	ACTTTTTAGA	ACCCCTTTTG	1500
CGTTGTGGCG	GCCCCGGGGC	CCCACAGTTG	GGTTTAGGTG	GGCACCCCTT	TGTCTACAAG	1560
TGGTGTCTCC	CCAAGAGAGA	GAACACCTCC	GGGGTCAAGC	GGACAACAAG	AGTGCGTCGT	1620

GAGGACTCTT	CACCCAAAGT	ATATAAAACC	CGCCCCGCGG	GGGAACCACC	GGCCGCTTTT	1680
CTGTAGACAC	AACCCCCACA	GTGGGAACCT	CTGAGGGCGC	ACACACAGGG	CGAGCCTTAT	1740
CAACAAGGGG	TGCCCCAACAG	AAACCCCGAG	TTAAAAATCG			

SEQ ID NO:25 DNA sequence
Nucleic Acid Accession #: BC001972.1
Coding sequence: 183-1019

1	11	21	31	41	51	
GGTCGGCTGG	TTATCGGGAG	TTGGAGGGCT	GAGGTCGGGA	GGGTGGTGTG	TACAGAGCTC	60
TAGGACTCAC	GCACCAGGCC	AGTCGCGGGT	TTTGGGCCGA	GGCCTGGGTT	ACAAGCAGCA	120
AGTGCGCGGT	TGGGGCCACT	GCGAGGCCGT	TTTAGAAAAC	TGTTTAAAC	AAAGAGCAAT	180
TGATGGATAA	ATCAGGAATA	GATTCTCTTG	ACCATGTGAC	ATCTGATGCT	GTGGAACCTG	240
CAAAATCGAAG	TGATAACTCT	TCTGATAGCA	GCTTATTTAA	AACTCAGTGT	ATCCCTTACT	300
CACCTAAAGG	GGAGAAAAGA	AACCCCATTC	GAAAATTTGT	TCGTACACCT	GAAAGTGTTT	360
ACGCAAGTGA	TTCATCAAGT	GACTCATCTT	TTGAACCAAT	ACCATTGACT	ATAAAAGCTA	420
TTTTTTGAAAG	ATTCAAGAAC	AGGAAAAAGA	GATATAAAAA	AAAGAAAAAG	AGGAGGTACC	480
AGCCAACAGG	AAGACCACGG	GGAAGACCAG	AAGGAAGGAG	AAATCCTATA	TACTCACTAA	540
TAGATAAGAA	GAAACAATTT	AGAAGCAGAG	GATCTGGCTT	CCCATTTTTT	GAATCAGAGA	600
ATGAAAAAAA	CGCACCTTGG	AGAAAAATTT	TAACGTTTGA	GCAAGCTGTT	GCAAGAGGAT	660
TTTTTAACTA	TATTGAAAAA	CTGAAGTATG	AACACCACCT	GAAAGAATCA	TTGAAGCAAA	720
TGAATGTTGG	TGAAGATTTA	GAAAATGAAG	ATTTTGACAG	TCGTAGATAC	AAATTTTTTG	780
ATGATGATGG	ATCCATTTCT	CCTATTGAGG	AGTCAACAGC	AGAGGATGAG	GATGCAACAC	840
ATCTTGAAGA	TAACGAATGT	GATATCAAAT	TGGCAGGGGA	TAGTTTCATA	GTAAGTTCTG	900
AATTCCCTGT	AAGACTGAGT	GTATACTTAG	AAGAAGAGGA	TATTACTGAA	GAAGCTGCTT	960
TGTCTAAAAA	GAGAGCTACA	AAAGCCAAAA	ATACTGGACA	GAGAGGCCTG	AAAATGTGAC	1020
AGGATCATGA	ATGTCAAAGG	CTTTTATCTT	GAGAACATGG	TGTCTGGAGT	TAAAGGACTA	1080
TTGTTAGATC	TGTGGGAAGG	AATTACAAGA	CAGTTGCTAA	AAGTTTGAAA	AAGACGGTTG	1140
CTAAACGTTA	TGAAAAACCA	GATAATCTAC	TTTTTTACCT	TAGGTATTGG	CATACTCCAC	1200
ACATCTGTAC	CATTCTTGAG	TGATCGCTTA	GGAATGAATG	TGATTTGAAC	TCATTTCATG	1260
TGAGAGGGTG	TCAAATTGAG	AACCAGGTAG	ATCCCCACCA	CCTACAGTAA	AAAGGACCCT	1320
AAAGTAAATT	GGTTGAAGAA	ATTAGATCCC	AAAGATTCTT	GGTGAATTTT	GAAGTCTTCA	1380
TCAGTATATC	CATATTAAAA	CGAGATGACA	GAAGCCAAAG	TAATTATGGG	CTGACAGGAC	1440
AACTGGATCA	GTTTCATTAA	AAAGGGCAAA	CTTGAAGATA	AATCTTTTGA	CTCCAGCTCT	1500
TTAGAGGATC	TAAAGTGACC	TTGATGGACA	GTGGAAGAAA	TCACAACATG	GAATTCCTCG	1560
AATAACAATT	TATTGACTTT	AAATAATTTT	GTCTAATGCT	ACATATACAC	AATTAAAAAA	1620
CCTTTACACT	AAAAAAAAAA	AAAAAA				

SEQ ID NO:26 Protein sequence:
Protein Accession #: AAH01972.1

1	11	21	31	41	51	
MDKSGIDSLD	HVTSDAVELA	NRSDNSSDSS	LFKTQCIPYS	PKGEKRNPIR	KFVRTPESVH	60
ASDSSSDSSF	EPIPLTIKAI	FERFKNRKKR	YKKKKKRRYQ	PTGRPRGRPE	GRRNPIYSLI	120
DKKKQFRSRG	SGFPFLESEN	EKNAPWRKIL	TFEQAVARGF	FNYIEKLKYE	HHLKESLKQM	180
NVGEDLENE	FDSRRYKFLD	DDGSISPIEE	STAEDEDATH	LEDNECDIKL	AGDSFIVSSE	240
FPVRLSVYLE	EEDITEEAAL	SKKRATKAKN	TGQRGLKM			

SEQ ID NO:27 DNA sequence
Nucleic Acid Accession #: AK027016
Coding sequence: 207-1043

1	11	21	31	41	51	
CTTTTCTTCC	GCACGGTTGG	AGGAGGTCGG	CTGGTTATCG	GGAGTTGGAG	GGCTGAGGTC	60
GGGAGGGTGG	TGTGTACAGA	GCTCTAGGAC	TCACGCACCA	GGCCAGTCGC	GGATTTTGGG	120

CCGAGGCCTG	GGTTACAAGC	AGCAAGTGCG	CGGTTGGGGC	CACTGCGAGG	CCGTTTTAGA	180
AAACTGTTTA	AAACAAAGAG	CAATTGATGG	ATAAATCAGG	AATAGATTCT	CTTGACCATG	240
TGACATCTGA	TGCTGTGGAA	CTTGCAAATC	GAAGTGATAA	CTCTTCTGAT	AGCAGCTTAT	300
TTAAAACTCA	GTGTATCCCT	TACTCACCTA	AAGGGGAGAA	AAGAAACCCC	ATTGCGAAAT	360
TTGTTTCGTAC	ACCTGAAAGT	GTTACGCAA	GTGATTCATC	AAGTGACTCA	TCTTTTGAAC	420
CAATACCATT	GACTATAAAA	GCTATTTTTG	AAAGATTCAA	GAACAGGAAA	AAGAGATATA	480
AAAAAAAGAA	AAAGAGGAGG	TACCAGCCAA	CAGGAAGACC	ACGGGGAAGA	CCAGAAGGAA	540
GGAGAAATCC	TATATACTCA	CTAATAGATA	AGAAGAAACA	ATTTAGAAGC	AGAGGATCTG	600
GCTTCCCAT	TTTAGAATCA	GAGAATGAAA	AAAACGCACC	TTGGAGAAAA	ATTTTAAACGT	660
TTGAGCAAGC	TGTTGCAAGA	GGATTTTTTTA	ACTATATTGA	AAAGCTGAAG	TATGAACACC	720
ACCTGAAAGA	ATCATTTGAAG	CAAATGAATG	TTGGTGAAAG	TTTAGAAAAAT	GAAGATTTTG	780
ACAGTCGTAG	ATACAAATTT	TTGGATGATG	ATGGATCCAT	TTCTCCTATT	GAGGAGTCAA	840
CAGCAGAGGA	TGAGGATGCA	ACACATCTTG	AAGATAACGA	ATGTGATATC	AAATTGGCAG	900
GGGATAGTTT	CATAGTAAGT	TCTGAATTCC	CTGTAAGACT	GAGTGATATC	TTAGAAGAAG	960
AGGATATTAC	TGAAGAAGCT	GCTTTGTCTA	AAAAGAGAGC	TACAAAAGCC	AAAAATACTG	1020
GACAGAGAGG	CCTGAAAAATG	TGACAGGATC	ATGAATGTCA	AAGGCTTTTA	TCTTGAGAAC	1080
ATGGTGTCTG	GAGTTAAAGG	TATTGGCATA	CTCCACACAT	CTGTACCAT	CTTGAGTGAT	1140
CGCTTAGGAA	TGAATGTGAT	TTGAACTCAT	TCATGTTGAG	AGGGTGTCAA	ATTGAGAACC	1200
AGGTAGATCC	CCACCACCTA	CAGTAAAAAG	GACCCTAAAG	TAAATTGGTT	GAAGAAATTA	1260
GATCCCAAAG	ATTCTTGGTG	AATTTTGAAG	TCTTCATCAG	TATATCCATA	TTAAAACGAG	1320
ATGACAGAAG	CCAAAGTAAT	TATGGCAAGT	AATGGTTTTT	ATCTTAACTA	TAAGTTATTT	1380
GCTCAAGGGT	GTAATGGTCA	TTACCAAGGC	TTTTTAGAATG	CAGTTTCTCA	TTTGCTGTGG	1440
ACATGACCAT	AAAAAAAAAAT	TTCCCAGTAG	GTTTTTCTATC	TGCTACGTTG	CTAGCAATCA	1500
GCTTATTGGG	AACAGTTGAT	TAACGTGAAT	AGAAATGCAA	TACAAATAAA	ATGTGAACCA	1560
CATGTGATTT	TTCTTTAAAA	TCAGTGAGAT	TTGAAAATTC	TCCTAGATCT	CTTGAATCAT	1620
GCAAATTTGC	TTTGCCTTTA	TATTGTAACC	CTTGTGGGTT	GCTAATAACC	AAGCAGTTTG	1680
TAGTAGAGTT	AACTCAGGCT	CGTTCTAGGG	ACTCATTCAT	GTTCACTCAC	TGTACACTCA	1740
TCTCTGAAAA	TGTAAAATTT	ACTTTTATAC	TATTGTTATG	TAGGGCTGAC	AGGACAACCTG	1800
GATCAGTTTC	ATTAAAAAGG	TATGTATGCA	TTAGAAAAGA	CATTTGTATG	GGTCATTTCA	1860
AAGAGGGCTT	ATGAGGCTGT	GAAACCCAGA	GCTCTTAACG	CTGTGACCAA	AGATGGAAGT	1920
TCTCTATAGG	AAGCCATAGC	ACTCCTAATG	TTTGGTGCTA	TGTTTTCCCTG	AGGAGATATA	1980
AAACGTAATA	ATCCATGATT	GTTGCCATGT	GAGAGTTTTA	AAGGTTAATC	AAAATTTCTC	2040
TTCTTCAGGG	CAAACCTGAA	GATAAATCTT	TTGACTCCAG	CTCTTTAGAG	GATCTAAAGT	2100
GACCTTGATG	GACAGTGGAA	GAAATCACAA	CATGGAATTC	CTCGAATAAC	AATTTATTGA	2160
CTTTAAATAA	TTTTGTCTAA	TGCTACATAT	ACACAATTAA	AAAACCTTTA	CATATTTTCT	2220
AGAAAGTCAG	CATGTATTTT	TGGCTCGAAG	TTTCTCTAGT	GTTTTCTGTG	GAAGGAATAA	2280
AAATTTGAGT	TTCAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAA	

SEQ ID NO:28 Protein sequence:
Protein Accession #: BAB15628.1

1	11	21	31	41	51	
MDKSGIDSLD	HVTSDAVELA	NRSDNSSDSS	LFKTQCIPYS	PKGEKRNPIR	KFVRTPESVH	60
ASDSSSDSSF	EPIPLTIKAI	FERFKNRKKR	YKKKKKRRYQ	PTGRPRGRPE	GRRNPIYSLI	120
DKKKQFRSRG	SGFPFLESEN	EKNAPWRKIL	TFEQAVARGF	FNIEKLYE	HHLKESLKQM	180
NVGEDLENED	FDSRRYKFLD	DDGSISPIEE	STAEDEDATH	LEDNECDIKL	AGDSFIVSSE	240
FPVRLSVYLE	EEDITEEAAL	SKKRATKAKN	TGQRGLKM			

SEQ ID NO:29 DNA sequence
Nucleic Acid Accession #: NM_004289.3
Coding sequence: 493-1695

1	11	21	31	41	51	
GCCGCCGCCT	CGTCCACCGG	AGGAGCCGGC	GCCAGCGTGG	ACGGCGGCAG	CCAGGCTGTG	60
CAGGGGGGCG	GCGGGGACCC	CCGAGCGGCT	CGGAGTGGCC	CCTTGGACGC	CGGGGAAGAG	120
GAGAAGGCAC	CCGCGGAACC	GACGGCTCAG	GTGCCGGACG	CTGGCGGATG	TGCGAGCGAG	180
GAGAATGGGG	TACTAAGAGA	AAAGCACGAA	GCTGTGGATC	ATAGTTCCCA	GCATGAGGAA	240

AATGAAGAAA	GGGTGTCAGC	CCAGAAGGAG	AACTCACTTC	AGCAGAATGA	TGATGATGAA	300
AACAAAATAG	CAGAGAAACC	TGACTGGGAG	GCAGAAAAGA	CCACTGAATC	TAGAAATGAG	360
AGACATCTGA	ATGGGACAGA	TACTTCTTTC	TCTCTGGAAG	ACTTATTCCA	GTTGCTTTCA	420
TCACAGCCTG	AAAATTCACT	GGAGGGCATC	TCATTGGGAG	ATATTCCCTCT	TCCAGGCAGT	480
ATCAGTGATG	GCATGAATTC	TTCAGCACAT	TATCATGTAA	ACTTCAGCCA	GGCTATAAGT	540
CAGGATGTGA	ATCTTCATGA	GGCCATCTTG	CTTTGTCCCA	ACAATACAT	TAGAAGAGAT	600
CCAACAGCAA	GGACTTCACA	GTCACAAGAA	CCATTTCTGC	AGTTAAATTC	TCATACCACC	660
AATCCTGAGC	AAACCCTTCC	TGGAACTAAT	TTGACAGGAT	TTCTTTCACC	GGTTGACAAT	720
CATATGAGGA	ATCTAACAAG	CCAAGACCTA	CTGTATGACC	TTGACATAAA	TATATTTGAT	780
GAGATAAACT	TAATGTCATT	GGCCACAGAA	GACAACCTTG	ATCCAATCGA	TGTTTCTCAG	840
CTTTTGTGATG	AACCAGATTC	TGATTCTGGC	CTTTCTTTAG	ATTCAAGTCA	CAATAATACC	900
TCTGTCATCA	AGTCTAATTC	CTCTCACTCT	GTGTGTGATG	AAGGTGCTAT	AGGTTATTGC	960
ACTGACCATG	AATCTAGTTC	CCATCATGAC	TTAGAAGGTG	CTGTAGGTGG	CTACTACCCA	1020
GAACCCAGTA	AGCTTTGTCA	CTTGGATCAA	AGTGATTCTG	ATTTCCATGG	AGATCTTACA	1080
TTTCAACACG	TATTTCTATA	CCACACTTAC	CAGTTACAGC	CAACTGCACC	AGAATCTACT	1140
TCTGAACCTT	TTCCGTGGCC	TGGGAAGTCA	CAGAAAGATA	GGAGTAGATA	CCTTGAAGAC	1200
ACAGATAGAA	ACTTGAGCCG	TGATGAACAG	CGTGCTAAAG	CTTTGCATAT	CCCTTTTTCT	1260
GTAGATGAAA	TTGTCGGCAT	GCCTGTTGAT	TCTTTCAATA	GCATGTTAAG	TAGATATTAT	1320
CTGACAGACC	TACAAGTCTC	ACTTATCCGT	GACATCAGAC	GAAGAGGGAA	AAATAAAGTT	1380
GCTGCGCAGA	ACTGTCGTAA	ACGCAAATTG	GACATAATTT	TGAATTTAGA	AGATGATGTA	1440
TGTAACCTGC	AAGCAAAGAA	GGAAACTCTT	AAGAGAGAGC	AAGCACAATG	TAACAAAGCT	1500
ATTAACATAA	TGAAACAGAA	ACTGCATGAC	CTTTATCATG	ATATTTTATG	TAGATTAAGA	1560
GATGACCAAG	GTAGGCCAGT	CAATCCCAAC	CACTATGCTC	TCCAGTGTAC	CCATGATGGA	1620
AGTATCTTGA	TAGTACCCAA	AGAACTGGTG	GCCTCAGGCC	ACAAAAAGGA	AACCCAAAAG	1680
GGAAAGAGAA	AGTGAGAAGA	AACTGAAGAT	GGACTCTATT	ATGTGAAGTA	GTAATGTTCA	1740
GAAACTGATT	ATTTGGATCA	GAAACCATTG	AAACTGCTTC	AAGAATTGTA	TCTTTAAGTA	1800
CTGCTACTTG	AATAACTCAG	TTAACGCTGT	TTTGAAGCTT	ACATGGACAA	ATGTTTAGGA	1860
CTTCAAGATC	ACACTTGTGG	GCAATCTGGG	GGAGCCACAA	CTTTTCATGA	AGTGCATTGT	1920
ATACAAAATT	CATAGTTATG	TCCAAAGAAT	AGGTTAACAT	GAAAACCCAG	TAAGACTTTC	1980
CATCTTGCCA	GCCATCCTTT	TTAAGAGTAA	GTTGGTTACT	TCAAAAAGAG	CAAACACTGG	2040
GGATCAAATT	ATTTTAAGAG	GTATTTTCACT	TTTAAATGCA	AAATAGCCTT	ATTTTTCATT	2100
AGTTTGTAG	CACATATAGT	AGCTTTTCAA	ACACTATTTT	AATCTTTATA	TTTAACTTAT	2160
AAATTTTGCT	TTCT					

SEQ ID NO:30 Protein sequence:
Protein Accession #: NP_004280

1	11	21	31	41	51	
MNSSAHYHVN	FSQAISQDVN	LHEAILLCPN	NTFRRDPTAR	TSQSQEPFLQ	LNSHTTNPEQ	60
TLPGTNLTGF	LSPVDNHMRN	LTSQDLLYDL	DINIFDEINL	MSLATEDNFD	PIDVSQFLDE	120
PDSDSLGLSD	SSHNNTSVIK	SNSSHVCDE	GAIGYCTDHE	SSSHDLEGA	VGGYYPEPSK	180
LCHLDQSDSD	FHGDLTQFHV	FHNHTYHLQP	TAPESTSEPF	PWPGKSQKIR	SRYLEDTRDN	240
LSRDEQRAKA	LHIPFSVDEI	VGMPVDSFNS	MLSRYLTDL	QVSLIRDIRR	RGKNKVAAQN	300
CRKRKLDIIL	NLEDDVCNLQ	AKKETLKREQ	AQCNKAINIM	KQKLHDLYHD	IFSLRLDDQG	360
RPVNPNIHYAL	QCTHDGSILI	VPKELVASGH	KKETQKGKRR			

SEQ ID NO:31 DNA sequence
Nucleic Acid Accession #: NM_033260.1
Coding sequence: 1-1208

1	11	21	31	41	51	
ATGAAGTTGG	AGGTGTTTCGT	CCCTCGCGCG	CCCCACGGGG	ACAAGCAGGG	CAGTGACCTG	60
GAGGGCGCGG	CGGCGAGCGA	CGCGCCGTCC	CCGCTGTCGG	CGGCGGGAGA	CGACTCCCTG	120
GGCTCAGATG	GGGACTGCGC	GGCCAAGCCG	TCCGCGGGCG	GCGGCGCCAG	AGATACGCAG	180
GGCGACGGCG	AACAGAGTGC	GGGAGGCGGG	CCGGGCGCGG	AGGAGGCGAT	CCCGGCAGCA	240
GCTGCTGCAG	CGGTGGTGGC	GGAGGGCGCG	GAGGCCGGGG	CGGCGGGGCC	AGGCGCGGGC	300
GGCGCGGGGA	GCGGCGAGGG	TGCACGCAGC	AAGCCATATA	CGCGGCGGCC	CAAGCCCCCC	360

TACTCGTACA	TCGCGCTCAT	CGCCATGGCC	ATCCGCGACT	CGGCGGGCGG	GCGCTTGACG	420
CTGGCGGAGA	TCAACGAGTA	CCTCATGGGC	AAGTTCCCCT	TTTTCGCGG	CAGCTACACG	480
GGCTGGCGCA	ACTCCGTGCG	CCACAACCTT	TCGCTCAACG	ACTGCTTCGT	CAAGGTGCTG	540
CGCGACCCCT	CTCGGCCCTG	GGGCAAGGAC	AACTACTGGA	TGCTCAACCC	CAACAGCGAG	600
TACACCTTCG	CCGACGGGGT	CTTCCGCGCG	CGCCGCAAGC	GCCTCAGCCA	CCGCGCGCCG	660
GTCCCCGCGC	CCGGGCTGCG	GCCCGAGGAG	GCCCCGGGCC	TCCCCGCGCG	CCCGCGGCC	720
GCGCCCCGCC	CCCCGGCCTC	GCCCCGCATG	CGCTCGCCCC	CCCGCCAGGA	GGAGCGCGCC	780
AGCCCCGCGG	GCAAGTTCTC	CAGCTCCTTC	GCCATCGACA	GCATCCTGCG	CAAGCCCTTC	840
CGCAGCCGTC	GCCTCAGGGA	CACGGCCCCC	GGGACGACGC	TTCAGTGGGG	CGCCGCGCCC	900
TGCCCCGCCG	TGCCCCGCGT	CCCCGCGCTC	CTCCCCGCGG	CGCCCTGCAG	GGCCCTGCTG	960
CCGCTCTGCG	CGTACGGCGC	GGGCGAGCCG	GCGCGGCTGG	GCGCGCGCGA	GGCCGAGGTG	1020
CCACCGACCG	CGCCGCCCTC	CCTGCTTGCA	CCTCTCCCCG	CGGCGGCCCC	CGCCAAGCCA	1080
CTCCGAGGCC	CGGCGGCCGG	CGGCGCGCAC	CTGTACTGCC	CCCTGCGGCT	GCCCGCAGCC	1140
CTGCAGGCGG	CCTTAGTCCG	NCGTCCTGGC	CCGCACCTGT	CGTACCCGGT	GGAGACGCTC	1200
CTAGCTTGA						

SEQ ID NO:32 Protein sequence:
Protein Accession #: NP_150285.1

1	11	21	31	41	51	
MKLEVFVPRA	AHGDQKQSDL	EGAGGSDAPS	PLSAAGDDSL	GSDGDCAAKP	SAGGGARDTQ	60
GDGEQSAGGG	PGAEEAIPAA	AAAADVVAEGA	EAGAAGPGAG	GAGSGEGARS	KPYTRRPKPP	120
YSYIALIAMA	IRDSAGGRLT	LAEINEYLMG	KFPFFRGSYT	GWRNSVRHNL	SLNDCFVKVL	180
RDPSRPWGKD	NYWMLNPNSE	YTFADGVFRR	RRKRLSHRAP	VPAPGLRPEE	APGLPAAPPP	240
APAAPASPRM	RSPARQEERA	SPAGKFSSSF	AIDSILRKPF	RSRRLRDTAP	GTTLQWGAAP	300
CPPLPAFPAL	LPAAPCRALL	PLCAYGAGEP	ARLGAREAEV	PPTAPPLLLA	PLPAAAPAKP	360
LRGPAAGGAH	LYCPLRLPAA	LQAALVRRPG	PHLSYPVETL	LA		

SEQ ID NO:33 DNA sequence
Nucleic Acid Accession #: NM_012128.2
Coding sequence: 43-2796

1	11	21	31	41	51	
GAACAAACCA	ACATTTGAGC	CAGGAATAAC	TAGAGAGGAA	CAATGGGGTT	ATTCAGAGGT	60
TTTGTTTTCC	TCTTAGTTCT	GTGCCTGCTG	CACCAGTCAA	ATACTTCCTT	CATTAAGCTG	120
AATAATAATG	GCTTTGAAGA	TATTGTCATT	GTTATAGATC	CTAGTGTGCC	AGAAGATGAA	180
AAAATAATTG	AACAAATAGA	GGATATGGTG	ACTACAGCTT	CTACGTACCT	GTTTGAAGCC	240
ACAGAAAAAA	GATTTTTTTT	CAAAAATGTA	TCTATATTAA	TTCCTGAGAA	TTGGAAGGAA	300
AATCCTCAGT	ACAAAAGGCC	AAAACATGAA	AACCATAAAC	ATGCTGATGT	TATAGTTGCA	360
CCACCTACAC	TCCCAGGTAG	AGATGAACCA	TACACCAAGC	AGTTCACAGA	ATGTGGAGAG	420
AAAGGCGAAT	ACATTCACCT	CACCCCTGAC	CTTCTACTTG	GAAAAAACA	AAATGAATAT	480
GGACCACCAG	GCAAACTGTT	TGTCCATGAG	TGGGCTCACC	TCCGGTGGGG	AGTGTTTGAT	540
GAGTACAATG	AAGATCAGCC	TTTCTACCGT	GCTAAGTCAA	AAAAAATCGA	AGCAACAAGG	600
TGTTCCGCAG	GTATCTCTGG	TAGAAATAGA	GTTTATAAGT	GTCAAGGAGG	CAGCTGTCTT	660
AGTAGAGCAT	GCAGAATTGA	TTCTACAACA	AAACTGTATG	GAAAAGATTG	TCAATTCTTT	720
CCTGATAAAG	TACAAACAGA	AAAAGCATCC	ATAATGTTTA	TGCAAAGTAT	TGATTCTGTT	780
GTTGAATTTT	GTAACGAAAA	AACCCATAAT	CAAGAAGCTC	CAAGCCTACA	AAACATAAAG	840
TGCAATTTTA	GAAGTACATG	GGAGGTGATT	AGCAATTCTG	AGGATTTTAA	AAACACCATA	900
CCCATGGTGA	CACCACCTCC	TCCACCTGTC	TTCTCATTGC	TGAAGATCCG	TCAAAGAATT	960
GTGTGCTTAG	TTCTTGATAA	GTCTGGAAGC	ATGGGGGGTA	AGGACCGCCT	AAATCGAATG	1020
AATCAAGCAG	CAAAACATTT	CCTGCTGCAG	ACTGTTGAAA	ATGGATCCTG	GGTGGGGATG	1080
GTTCACTTTT	ATAGTACTGC	CACTATTGTA	ATAAAGCTAA	TCCAAATAAA	AAGCAGTGAT	1140
GAAAGAAAACA	CACTCATGGC	AGGATTACCT	ACATATCCTC	TGGGAGGAAC	TTCCATCTGC	1200
TCTGGAATTA	AATATGCATT	TCAGGTGATT	GGAGAGCTAC	ATTCCCAACT	CGATGGATCC	1260
GAAGTACTGC	TGCTGACTGA	TGGGGAGGAT	AACACTGCAA	GTTCTTGAT	TGATGAAGTG	1320
AAACAAAGTG	GGGCCATTGT	TCATTTTATT	GCTTTGGGAA	GAGCTGCTGA	TGAAGCAGTA	1380
ATAGAGATGA	GCAAGATAAC	AGGAGGAAGT	CATTTTATATG	TTTCAGATGA	AGCTCAGAAC	1440

AATGGCCTCA	TTGATGCTTT	TGGGGCTCTT	ACATCAGGAA	ATACTGATCT	CTCCCAGAAG	1500
TCCCTTCAGC	TCGAAAGTAA	GGGATTAACA	CTGAATAGTA	ATGCCTGGAT	GAACGACACT	1560
GTCATAATTG	ATAGTACAGT	GGGAAAGGAC	ACGTTCTTTC	TCATCACATG	GAACAGTCTG	1620
CCTCCCAGTA	TTTCTCTCTG	GGATCCCAGT	GGACAATAA	TGGAATAATT	CACAGTGGAT	1680
GCAACTTCCA	AAATGGCCTA	TCTCAGTATT	CCAGGAAGT	CAAAGGTGGG	CACTTGGGCA	1740
TACAATCTTC	AAGCCAAAGC	GAACCCAGAA	ACATTAACTA	TTACAGTAAC	TTCTCGAGCA	1800
GCAAATTTCT	CTGTGCCTCC	AATCACAGTG	AATGCTAAAA	TGAATAAGGA	CGTAAACAGT	1860
TTCCCCAGCC	CAATGATTGT	TTACGCAGAA	ATTCTACAAG	GATATGTACC	TGTTCTTGGA	1920
GCCAATGTGA	CTGCTTTCAT	TGAATCACAG	AATGGACATA	CAGAAGTTTT	GGAAGTTTTG	1980
GATAATGGTG	CAGGCGCTGA	TTCTTTCAAG	AATGATGGAG	TCTACTCCAG	GTATTTTACA	2040
GCATATACAG	AAAATGGCAG	ATATAGCTTA	AAAGTTCGGG	CTCATGGAGG	AGCAAACACT	2100
GCCAGGCTAA	AATTACGGCC	TCCACTGAAT	AGAGCCGCGT	ACATACCAGG	CTGGGTAGTG	2160
AACGGGGAAA	TTGAAGCAAA	CCCGCCAAGA	CCTGAAATTG	ATGAGGATAC	TCAGACCACC	2220
TTGGAGGATT	TCAGCCGAAC	AGCATCCGGA	GGTGCATTGT	TGGTATCACA	AGTCCCAAGC	2280
CTTCCCTTGC	CTGACCAATA	CCCACCAAGT	CAAATCACAG	ACCTTGATGC	CACAGTTCAT	2340
GAGGATAAGA	TTATTCTTAC	ATGGACAGCA	CCAGGAGATA	ATTTTGATGT	TGGAAGAGTT	2400
CAACGTTATA	TCATAAGAAT	AAGTGCAAGT	ATTCTTGATC	TAAGAGACAG	TTTTTGATGAT	2460
GCTCTTCAAG	TAAATACTAC	TGATCTGTCA	CCAAAGGAGG	CCAACTCCAA	GGAAAGCTTT	2520
GCATTTAAAC	CAGAAAATAT	CTCAGAAGAA	AATGCAACCC	ACATATTTAT	TGCCATTAAA	2580
AGTATAGATA	AAAGCAATTT	GACATCAAAA	GTATCCAACA	TTGCACAAGT	AACTTTGTTT	2640
ATCCCTCAAG	CAAATCCTGA	TGACATTGAT	CCTACTCCTA	CTCCTACTCC	TACTCCTGAT	2700
AAAAGTCATA	ATTCTGGAGT	TAATATTTCT	ACGCTGGTAT	TGTCTGTGAT	TGGGTCTGTT	2760
GTAATTGTTA	ACTTTATTTT	AAGTACCACC	ATTTGAACCT	TAACGAAGAA	AAAAATCTTC	2820
AAGTAGACCT	AGAAGAGAGT	TTTAAAAAAC	AAAACAATGT	AAGTAAAGGA	TATTTCTGAA	2880
TCTTAAATTT	CATCCCATGT	GTGATCATAA	ACTCATAAAA	ATAATTTTAA	GATGTCGGAA	2940
AAGGATACTT	TGATTAAATA	AAAACACTCA	TGGATATGTA	AAAACGTGCA	AGATTAAAT	3000
TTAATAGTTT	CATTTATTTG	TTATTTTATT	TGTAAGAAAT	AGTGATGAAC	AAAGATCCTT	3060
TTTCATACTG	ATACCTGGTT	GTATATTATT	TGATGCAACA	GTTTTCTGAA	ATGATATTTT	3120
AAATTGCATC	AAGAAATTAA	AATCATCTAT	CTGAGTAGTC	AAAATACAAG	TAAAGGAGAG	3180
CAAATAAACA	ACATTTGGAA	AAAAAAAAAA	AAAAAAAAAA			

SEQ ID NO:34 Protein sequence:
Protein Accession #: NP_036260.1

1	11	21	31	41	51	
MGLFRGFVFL	LVLCLLHQS	TSFIKLNNNG	FEDIVIVIDP	SVPEDEKIE	QIEDMVTAS	60
TYLFEATEKR	FFFKNVSILI	PENWKENPQY	KRPKHENHKH	ADVIVAPPTL	PGRDEPYTKQ	120
FTECGEKGEY	IHFTPDLLLG	KKQNEYGPPG	KLFVHEWAHL	RWGVFDEYNE	DQPFYRAKSK	180
KIEATRCASG	ISGRNRVYKC	QGGSCLSRAC	RIDSTTKLYG	KDCQFFPDKV	QTEKASIMFM	240
QSIDSVVEFC	NEKTHNQEAP	SLQNIKCENR	STWEVISNSE	DFKNTIPMVT	PPPPPVFSL	300
KIRQRIVCLV	LDKSGSMGGK	DRLNRMNQAA	KHFLLOTVEN	GSWVGMVHFD	STATIVNKLI	360
QIKSSDERNT	LMAGLPTYPL	GGTSICSGIK	YAFQVIGELH	SQLDGSEVLL	LTDGEDNTAS	420
SCIDEVKQSG	AIVHFIALGR	AADEAVIEMS	KITGGSHFYV	SDEAQNNGLI	DAFGALTSGN	480
TDLSQKSLQL	ESKGLTLNSN	AWMNDTVIID	STVGKDTFFL	ITWNSLPPSI	SLWDPSGTIM	540
ENFTVDATSK	MAYLSIPGTA	KVGTWAYNLQ	AKANPETLTI	TVTSRAANSS	VPPITVNAKM	600
NKDVNSFPSP	MIVYAEILQG	YVPVLGANVT	AFIESQNGHT	EVLELLDNGA	GADSFKNDBGV	660
YSRYFTAYTE	NGRYSKLVRA	HGGANTARLK	LRPPLNRAAY	IPGWVVNGEI	EANPPRPEID	720
EDTQTTLEDF	SRTASGGAFV	VSQVPSLPLP	DQYPPSQITD	LDATVHEDKI	ILTWAPGDN	780
FDVGKVQRYI	IRISASILD	RDSFDDALQV	NTTDLSPKEA	NSKESFAFKP	ENISEENATH	840
IFIAIKSIDK	SNLTSKVSNI	AQVTLFIPQA	NPDDIDPTPT	PTPTPDKSHN	SGVNISTLVL	900
SVIGSVVIVN	FILSTTI					

SEQ ID NO:35 DNA sequence

Nucleic Acid Accession #:

NM_000901.1

Coding sequence: 217-3171

1	11	21	31	41	51	
CGCGGGAGCC	AAC TTCAGGC	TGCTCAGAGG	AAGCCCGTGC	AGTCAGTCAC	CTGGGTGCAA	60
GAGCGTTGCT	GCCTCGGGCT	CTCCCGCTGC	AGGGAGAGCG	GCACTCGCTG	GCCTGGATGT	120
GGTTGGATTT	AGGGGGGCTC	CGCAGCAGGG	GTTTCGTGGC	GGTGGCAAGC	GCTGCAACAG	180
GTAGACGGCG	AGAGACGGAC	CCCGGCCGAG	GCAGGGATGG	AGACCAAAGG	CTACCACAGT	240
CTCCCTGAAG	GTCTAGATAT	GGAAAGACGG	TGGGGTCAAG	TTTCTCAGGC	TGTGGAGCGT	300
TCTTCCCTGG	GACCTACAGA	GAGGACCGAT	GAGAATAACT	ACATGGAGAT	TGTCAACGTA	360
AGCTGTGTTT	CCGGTGCTAT	TCCAAACAAC	AGTACTCAAG	GAAGCAGCAA	AGAAAAACAA	420
GAAGTACTCC	CTTGCCCTTCA	GCAAGACAAT	AATCGGCCCTG	GGATTTTAAAC	ATCTGATATT	480
AAAAGTGGAG	TGGAATCTAA	GGAACCTTCA	GGAAGTGTAG	CTGAGTCCAT	GGGTTTATAT	540
ATGGATTCTG	TAAGAGATGC	TGACTATTCC	TATGAGCAGC	AGAACCAACA	AGGAAGCATG	600
AGTCCAGCTA	AGATTTATCA	GAATGTTGAA	CAGCTGGTGA	AATTTTACAA	AGGAAATGGC	660
CATCGTCCCT	CCACTCTAAG	TTGTGTGAAC	ACGCCCTTGA	GATCATTTAT	GTCTGACTCT	720
GGGAGCTCCG	TGAATGGTGG	CGTCATGCGC	GCCATTGTTA	AAAGCCCTAT	CATGTGTCAT	780
GAGAAAAGCC	CGTCTGTTTG	CAGCCCTCTG	AACATGACAT	CTTCGGTTTG	CAGCCCTGCT	840
GGAATCAAAC	CTGTGTCCCTC	CACCACAGCC	AGCTTTGGCA	GTTTTCAGT	GCACAGCCCA	900
ATCACCCAGG	GAACCTCCTCT	GACATGCTCC	CCTAATGCTG	AAAATCGAGG	CTCCAGGTCG	960
CACAGCCCTG	CACATGCTAG	CAATGTGGGC	TCTCCTCTCT	CAAGTCCGTT	AAGTAGCATG	1020
AAATCCTCAA	TTTCCAGCCC	TCCAAGTCAC	TGCAGTGTA	AATCTCCAGT	CTCCAGTCCC	1080
AATAATGTCA	CTCTGAGATC	CTCTGTGTCT	AGCCCTGCAA	ATATTAACAA	CTCAAGGTGC	1140
TCTGTTTCCA	GCCCTTCGAA	ACTAATAAAC	AGATCCACGC	TTTCCAGTCC	GGCAGCCAGT	1200
ACTGTGGGAT	CTATCTGTAG	CCCTGTAAAC	AATGCCTTCA	GCTACACTGC	TTCTGGCACC	1260
TCTGCTGGAT	CCAGTACATT	GCGGGATGTG	GTTCCCAGTC	CAGACACGCA	GGAGAAAGGT	1320
GCTCAAGAGG	TCCCTTTTCC	TAAGACTGAG	GAAGTAGAGA	GTGCCATCTC	AAATGGTGTG	1380
ACTGGCCAGC	TTAATATTGT	CCAGTACATA	AAACCAGAAC	CAGATGGAGC	TTTTAGCAGC	1440
TCATGTCTAG	GAGGAAATAG	CAAAATAAAT	TCGGATTCTT	CATTCTCAGT	ACCAATAAAG	1500
CAAGAATCAA	CCAAGCATTC	ATGTTTCAGGC	ACCTCTTTTA	AAGGGAATCC	AACAGTAAAC	1560
CCGTTTCCAT	TTATGGATGG	CTCGTATTTT	TCCTTTATGG	ATGATAAAGA	CTATTATTCC	1620
CTATCAGGAA	TTTTAGGACC	ACCTGTGCCC	GGCTTTGATG	GTAAGTGTGA	AGGCAGCGGA	1680
TTCCAGTG	GTATTAAACA	AGAACCAGAT	GACGGGAGCT	ATTACCCAGA	GGCCAGCATC	1740
CCTTCTCTG	CTATTGTTGG	GGTGAATTCA	GGTGGACAGT	CCTTCCACTA	CAGGATTGGT	1800
GCTCAAGGTA	CAATATCTTT	ATCACGATCG	GCTAGAGACC	AATCTTTCCA	ACACCTGAGT	1860
TCCTTTCCCT	CTGTCAATAC	TTTAGTGGAG	TCATGGAAAT	CACACGGCGA	CCTGTCTGCT	1920
AGAAGAAAGT	ATGGGTATCC	GGTCTTAGAA	TACATTCCAG	AAAATGTATC	AAGCTCTACT	1980
TTACGAAGTG	TTTCTACTGG	ATCTTCAAGA	CCTTCAAAAA	TATGTTTGGT	GTGTGGGGAT	2040
GAGGCTTCAG	GATGCCATTA	TGGGGTAGTC	ACCTGTGGCA	GCTGCAAAGT	TTTCTTCAAA	2100
AGAGCAGTGG	AAGGGCAACA	CAACTATTTA	TGTGCTGGAA	GAAATGATTG	CATCATTGAT	2160
AAGATTCGAC	GAAAGAATTG	TCCTGCTTGC	AGACTTCAGA	AATGTCTTCA	AGCTGGAATG	2220
AATTTAGGAG	CACGAAAGTC	AAAGAAGTTG	GGAAAGTTAA	AAGGGATTCA	CGAGGAGCAG	2280
CCACAGCAGC	AGCAGCCCCC	ACCCCCACCC	CCACCCCCGC	AAAGCCCAGA	GGAAGGGACA	2340
ACGTACATCG	CTCCTGCAAA	AGAACCCTCG	GTCAACACAG	CACTGGTTCC	TCAGCTCTCC	2400
ACAATCTCAC	GAGCGCTCAC	ACCTTCCCCC	GTTATGGTCC	TTGAAAAACAT	TGAACCTGAA	2460
ATTGTATATG	CAGGCTATGA	CAGCTCAAAA	CCAGATACAG	CCGAAAAATCT	GCTCTCCACG	2520
CTCAACCGCT	TAGCAGGCAA	ACAGATGATC	CAAGTCGTGA	AGTGGGCAAA	GGTACTTCCA	2580
GGATTTAAAA	ACTTGCCCTCT	TGAGGACCAA	ATTACCCTAA	TCCAGTATTC	TTGGATGTGT	2640
CTATCATCAT	TTGCCTTGAG	CTGGAGATCG	TACAAACATA	CGAACAGCCA	ATTTCTCTAT	2700
TTTGCACCAG	ACCTAGTCTT	TAATGAAGAG	AAGATGCATC	AGTCTGCCAT	GTATGAACATA	2760
TGCCAGGGGA	TGCACCAAAT	CAGCCTTCAG	TTCGTTTCGAC	TGCAGCTCAC	CTTTGAAGAA	2820
TACACCATCA	TGAAAGTTTT	GCTGCTACTA	AGCACAATTC	CAAAGGATGG	CCTCAAAAGC	2880
CAGGCTGCAT	TTGAAGAAAT	GAGGACAAAT	TACATCAAAG	AACTGAGGAA	GATGGTAACT	2940
AAGTGTCCTA	ACAATCTTGG	GCAGAGTCTG	CAGAGTTTCT	ACCAACTGAC	CAAGCTGCTG	3000
GACTCCATGC	ATGACCTGGT	GAGCGACCTG	CTGGAATTCT	GCTTCTACAC	CTTCCGAGAG	3060
TCCCATGCGC	TGAAGGTAGA	GTCCCCGCA	ATGCTGGTGG	AGATCATCAG	CGACCAGCTG	3120
CCCAAGGTGG	AGTCGGGGAA	CGCCAAGCCG	CTCTACTTCC	ACCGGAAGTG	ACTGCCCGCT	3180
GCCCAGAAGA	ACTTTGCCTT	AAGTTTCCCT	GTGTTGTTCC	ACACCCAGAA	GGACCCAAGA	3240
AAACCTGTTT	TTAACATGTG	ATGGTTGATT	CACACTTGTT	CAACAGTTTC	TCAAGTTTAA	3300

AGTCATGTCA	GAGGTTTGGG	GCCGGGAAAAG	CTGTTTTTCC	GTGGATTTGG	CGAGACCAGA	3360
GCAGTCTGAA	GGATTCCCCA	CCTCCAATCC	CCCAGCGCTT	AGAAACATGT	TCCTGTTCCCT	3420
CGGGATGAAA	AGCCATATCT	AGTCAATAAC	TCTGATTTTG	ATATTTTCAC	AGATGGAAGA	3480
AGTTTTAACT	ATGCCGTGTA	GTTTCTGGTA	TCGTTCGCTT	GTTTTAAAAG	GGTTCAAGGA	3540
CTAACGAACG	TTTTAAAGCT	TACCCTTGGT	TTGCACATAA	AACGTATAGT	CAATATGGGG	3600
CATTAATATT	CTTTTGTTAT	TAAAAAACA	CAAAAAAATA	ATAAAAAAT	ATATACAGAT	3660
TCCTGTTGTG	TAATAACAGA	ACTCGTGGCG	TGGGGCAGCA	GCTGCCCTCTG	AGCCCTCGCT	3720
CGTCCACGGT	CTTCTGCATC	ACTGGTATAC	ACACTCGTTA	GCGTCCATTT	CTTATTTAAT	3780
TAGAATGGAT	AAGATGATGT	TAAATGCCTT	GGTTTGATTT	CTAGTATCTA	TTGTGTTGGC	3840
TTTACAAATA	ATTTTTTGCA	GTCTTTTGCT	GTGCTGTACA	TTACTGTATG	TATAAATTAT	3900
GAAGGACCTG	AAATAAGGTA	TAAGGATCTT	TTGTAAATGA	GACACATACA	AAAAAATCT	3960
TTAATGGTTA	ATAGGATGAA	TGGGAAAGTA	TTTTTGAAAG	AATTCTATTT	TGCTGGAGAC	4020
TATTTAAGTA	CTATCTTTGT	CTAAACAAGG	TAATTTTTTT	TTGTAAAGTG	CAATGTCCTG	4080
CATGCATAAT	GAACCGTTTA	CAGTGTATTT	AAGAAAGGGA	AAGCTGTGCC	TTTTTTAGCT	4140
TCATATCTAA	TTTACCATTA	TTTTACAGTC	TCTGTGTGTA	ATAACCACAC	TGAAACCTCT	4200
TCGGTTGTCT	TGAAACCTTT	CTACTTTTTT	TGTACTTTTT	GTTTTGTTCT	TGGTCTCCCG	4260
CTTGGGGCAT	TTGTGGGACT	CCAGCACGTT	TTCTGGCTTC	TGCTTCATCC	TGCTCCATCG	4320
GGGAATGACA	CACTGCGGTG	TCTGCAGCTC	CTGGAAGGTG	TCATTTGACA	ACACATGTGG	4380
GAGAGGAGGT	CCTTGGAGTG	CTGCAGCTTT	GGGAAAGCCT	GCCTCGTTTC	CCTTTTCCTC	4440
TAGAAGCAGA	ACCAGCTCTA	CGAGAGTGAG	ACTGGGAACT	TGATGGCTCA	GAGAGCATCT	4500
TTTCTCCTCA	TTTTAGAAAA	TCAGATTTTC	TCCTGTGGGA	AAAAAAAATT	CCATGCACTC	4560
TCTCTCTGTT	AAAGATCAGC	TATTCCTTTC	TGATCTTGGA	AAGAGGTTCT	GCACTCCTGG	4620
AACCGGTCAC	AGGAACGCAC	AGATCATGGC	AGGATGCGCT	GGGACGGCCC	ATCTTGGCAA	4680
GGTTCAGTCT	GAATGGCATG	GAGACCGGGA	GATAGAGGGG	TTTLAGATTT	TTAAAAGGTA	4740
GGTTTTAAAA	ATAAGTTTTA	TACATAAACA	GTTTTGGAGA	AAAATTACAG	ATCATATAAG	4800
CAAGACAGTG	GCACTAAAAT	GTTTAATTCA	TTAATCTGTT	TGTTTGGCAC	TGATGCAATG	4860
TATGGCTTTT	CTCTTGCCCC	AAATCACAAA	CATATGTATC	TTTGGGGAAA	CTAACAATAT	4920
GATTGCACTA	AATAAACTAC	TTTGAATAGA	GGCCAAATTA	ATCTTTTAAA	AATGATGATA	4980
ATCATCAGGT	TTACTCAGTG	AAATCATATT	AATTATTTTC	CAAAATCTAA	AAGCTGTAGC	5040
TGGAGAAGCC	CATGGCCACG	AGGAAGCAGC	AATTAATTAG	ATCAACACTT	TTCTCCAGGG	5100
TTCAACCATGC	AGGCAACATT	ACCTTGTCTT	TCAAAAGACA	CCTGCCTTAG	TGCAAGGGGA	5160
AACCTGTGAA	AGCTGCACTC	AGAGGGAGGA	GTCTTTCTTA	CATAATTTGC	AATTTTCAGGA	5220
ATTTAATTTA	TAGGCAGATC	TTTAAATACA	GTCAACTTAC	GGTGCACAGT	AATATGAAAG	5280
CCACACTTTG	AAGGTAATAA	ATACACAGCA	TGCAGACTGG	GAGTTGCTAG	CAACAAATG	5340
GCTTACTTAC	AAAAGCAGCT	TTTAGTTTCA	ACTTAGTTT	TATAAAATGA	GAATTCGTAC	5400
TTACTTAACC	AGGTTTGGGA	TGGAGATGGT	TGCATCAGC	TTTTTGATAT	AACAAAGTTA	5460
CTGGCTCTTT	GTGTGTCTCC	AGGTAACCTT	GCTTGATTAA	ACAGCAAAGC	CATATTCTAA	5520
ATTCACTGTT	GAATGCCTGT	CCCAGTCCAA	ATTGTCTGTC	TGCTCTTATT	TTTGTACCAT	5580
ATTGCTCTTA	AAAATCTTGG	TTTGGTACAG	TTCATAATTC	ACCAAAAAGT	TCATATAATT	5640
TAAAGAAACA	CTAAATTAGT	TTAAAATGAA	GCAATTTATA	TCTTTATGCA	AAAACATATG	5700
TCTGTCTTTG	CAAAGGACTG	TAAGCAGATT	ACAATAAATC	CTTTACTTT		

SEQ ID NO:36 Protein sequence:
Protein Accession #: NP_000892.1

1	11	21	31	41	51	
METKGYHSLP	EGLDMERRWG	QVSQAVERS	LGPTERTDEN	NYMEIVNVSC	VSGAIPNNST	60
QGSSKEKQEL	LPCLQQDNNR	PGILTSDIKT	ELESKELSAT	VAESMGLYMD	SVRDADYSYE	120
QQNQQGSMS	AKIYQNVQEL	VKFYKGNHR	PSTLSCVNTP	LRSFMSDSGS	SVNGGVMRAI	180
VKSPIMCHEK	SPSVCSPLNM	TSSVCSFAGI	NSVSSTTASF	GSFPVHSPIT	QGTPLTCSFN	240
AENRGRSRHS	PAHASNVGSP	LSSPLSSMKS	SISSPPSHCS	VKSPVSSPNN	VTLRSSVSSP	300
APINNRSKSV	SSPSNTNNRS	TLSSPAASTV	GSICSPVNNA	FSYTASGTTA	GSSTLRDVVP	360
SPDTQEKGAQ	EVFPFKTEEV	ESAISNGVTG	QLNIVQYIKP	EPDGAFFSSC	LGGNSKINSN	420
SSFSVPIKQE	STKHSCSGTS	FKGNPTVNP	PFMDGSYFSF	MDDKDYSSLS	GILGPPVPGF	480
DGNCEGSGFP	VGIKQEPDDG	SYYPEASIPS	SAIVGVNSGG	QSFHYRIGAQ	GTISLSRSAR	540
DQSFQHLSSF	PPVNTLVESW	KSHGDLSSRR	SDGYPVLEYI	PENVSSSTLR	SVSTGSSRPS	600
KICLVCGDEA	SGCHYGVVTC	GSCKVFFKRA	VEGQHNLYCA	GRNDCIIDKI	RRKNCPACRL	660
QKCLQAGMNL	GARKSKKLK	LKGIHEEQPQ	QQQPPPPPPP	PQSPEEGTTY	IAPAKEPSVN	720
TALVPQLSTI	SRALTPSPVM	VLENIEPEIV	YAGYDSSKPD	TAENLLSTLN	RLAGKQMIQV	780

VKWAKVLPGF	KNLPLEDQIT	LIQYSWMCLS	SFALSWRSYK	HTNSQFLYFA	PDLVFNEEKM	840
HQSAMYELCQ	GMHQISLQFV	RLQLTFEEYT	IMKVLLLLST	IPKDGLKSQA	AFEEMRTNYI	900
KELRKMVTKC	PNNSGQSWQR	FYQLTKLLDS	MHDLVSDLLE	FCFYTFRESH	ALKVEFPAML	960
VEIISDQLPK	VESGNAKPLY	FHRK				

SEQ ID NO:37 DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
CCTACCAGGT	TCAAGCAACT	CTGCTGCCTC	AGCTCCCAAG	TAGCTGGGAT	TACAGGTGCA	60
TGCCACTACA	CCTGGCTTTT	TGTATTTTTA	GTAGAGATGG	TTTTCCTAT	GTTGGCCAGG	120
CTGATCTTGA	ATTCTTGGCC	TGAAGTAATC	TGCCTGCCTC	AGCCTCCCAA	AGTGCTGGGA	180
TTATAGGAGC	CACCACACCT	GGCATAACTG	GTATTTTFTA	TATGCTTCCT	GGGCAACTTA	240
AAAAATTGAT	TACTCTGTTG	TTTCTTCCTT	TTTTTTTTTT	TTTGGCTTT	GACCAATTTG	300
TGAGACCCAA	GTATCTCCTA	CCTAGAAAAA	AAACACACTA	AACAGTAAAT	GATTACCAAC	360
CTATTTGGAA	CAAATCTCAA	TTAATTAACA	TATACTTCAA	GGAGAAGACT	TAACAAAATC	420
TTACTTTTCA	TTCTTAATAG	CTCTTTCCAT	AAAAATGTTC	CACAAGTGTA	TCAAATTAGT	480
CCTAACAACT	ACTGTTAAGT	GATTAATGAA	ACAGGAGTGA	CAGGAGTGAA	TTTAATAATA	540
GCAATAAAATA	CAGATGGGAC	TACATAAATT	GTGGAGGTCC	TGATGCAAAA	CTCTCTCTGT	600
ATTGATGGC	ATCTCAGCTT	TCTCATAGAG	CTGTTTCACT	GTGAGGGTCT	TTATCCTTCA	660
TGCAGAGCTT	CATTATTTTC	TTTCTTCTAG	CAATCAGTCC	AAAGCACAAAT	GTCAGAAAGA	720
TCACAACACA	TGCAGCAATA	ATGGGCTCTA	TTGGTACACC	CACAGTTTTA	TCTTTAACAA	780
TC						

SEQ ID NO:38 DNA sequence

Nucleic Acid Accession #: NM_001192.1

Coding sequence: 219-773

1	11	21	31	41	51	
AAGACTCAAA	CTTAGAAACT	TGAATTAGAT	GTGGTATTCA	AATCCTTACG	TGCCGCGAAG	60
ACACGACAG	CCCCCGTAAG	AACCCACGAA	GCAGGCGAAG	TTCATTTGTC	TCAACATTCT	120
AGCTGCTCTT	GCTGCATTGG	CTCTGGAATT	CTTGTAGAGA	TATTACTTGT	CCTTCCAGGC	180
TGTTCTTTCT	GTAGCTCCCT	TGTTTTCTTT	TTGTGATCAT	GTTGCAGATG	GCTGGGCAGT	240
GCTCCCCAAA	TGAATATTTT	GACAGTTTGT	TGCATGCTTG	CATACCTTGT	CAACTTCGAT	300
GTTCTTCTAA	TACTCCTCCT	CTAACATGTC	AGCGTTATTG	TAATGCAAGT	GTGACCAATT	360
CAGTGAAAGG	AACGAATGCG	ATTCTCTGGA	CCTGTTTGGG	ACTGAGCTTA	ATAATTTCTT	420
TGGCAGTTTT	CGTGCTAATG	TTTTTGCTAA	GGAAGATAAG	CTCTGAACCA	TTAAAGGACG	480
AGTTTAAAAA	CACAGGATCA	GGTCTCCTGG	GCATGGCTAA	CATTGACCTG	GAAAAGAGCA	540
GGACTGGTGA	TGAAATTATT	CTTCCGAGAG	GCCTCGAGTA	CACGGTGGAA	GAATGCACCT	600
GTGAAGACTG	CATCAAGAGC	AAACCGAAGG	TCGACTCTGA	CCATTGCTTT	CCACTCCCAG	660
CTATGGAGGA	AGGCGCAACC	ATTCTTGTCA	CCACGAAAAC	GAATGACTAT	TGCAAGAGCC	720
TGCCAGCTGC	TTTGAGTGCT	ACGGAGATAG	AGAAATCAAT	TTCTGCTAGG	TAATTAACCA	780
TTTCGACTCG	AGCAGTGCCA	CTTTAAAAAT	CTTTTGTGAG	AATAGATGAT	GTGTCAGATC	840
TCTTTAGGAT	GACTGTATTT	TTTCAAGTGC	GATACAGCTT	TTTGTCTCTT	AACTGTGGAA	900
ACTCTTTATG	TTAGATATAT	TTCTCTAGGT	TACTGTTGGG	AGCTTAATGG	TAGAACTTCT	960
CTTGGTTTCA	TGATTAAAGT	CTTTTTTTTT	CCTGA			

SEQ ID NO:39 Protein sequence:

Protein Accession #: NP_001183.1

1	11	21	31	41	51	
MLQMAGQCSQ	NEYFDSLLHA	CIPCQLRCSS	NTPPLTCQRY	CNASVTNSVK	GTNAILWTCL	60
GLSLIISLAV	FVLMFLLRKI	SSEPLKDEFK	NTGSGLLGMA	NIDLEKSRTG	DEIILPRGLE	120
YTVEECTCED	CIKSKPKVDS	DHCFPLPAME	EGATILVTTK	TNDYCKSLPA	ALSATEIEKS	180
ISAR						

SEQ ID NO:40 DNA sequence

Nucleic Acid Accession #:

NM_025087.1

Coding sequence: 183-2282

1	11	21	31	41	51	
ACACTGCCTC	GGTTCGGCAA	GTGGGTCAGT	TGGCTGGGGC	TCACTTGGCA	ACGGGACGCG	60
GGAACGAGGG	GCGCGGACGC	AGGCCCGGGA	GGACGCGGCG	GCGGGAACCT	GGGGGCGCAG	120
GGCTAGGGCA	GCGGGCCCCA	CCCGCACGGC	TTTCTGGAA	AGCGCTGCCC	CTCGCCGCGG	180
CGATGACCTC	GCTGTGGAGA	GAAATCCTCT	TGGAGTCGCT	GCTGGGATGT	GTTTCTTGGT	240
CTCTCTACCA	TGACCTGGGA	CCGATGATCT	ATTACTTTCC	TTTGCAAACA	CTAGAACTCA	300
CTGGGCTTGA	AGGTTTTAGT	ATAGCATTTT	TTTCTCCAAT	ATTCCTAACA	ATTACTCCTT	360
TCTGGAAATT	GGTTAACAAG	AAGTGGATGC	TAACCCTGCT	GAGGATAATC	ACTATTGGCA	420
GCATAGCCTC	CTTCCAGGCT	CCAAATGCCA	AACTTCGACT	GATGGTTCTT	GCGCTTGGGG	480
TGCTTCTCT	ACTGATAGTG	CAAGCTGTGA	CTTGGTGGTC	AGGAAGTCAT	TTGCAAAGGT	540
ACCTCAGAA	TTGGGGATT	ATTTTAGGAC	AGATTGTTCT	TGTTGTTCTA	CGCATATGGT	600
ATACTTCACT	AAACCCAATC	TGGAGTTATC	AGATGTCCAA	CAAAGTGATA	CTGACATTAA	660
GTGCCATAGC	CACACTTGAT	CGTATTGGCA	CAGATGGTGA	CTGCAGTAAA	CCTGAAGAAA	720
AGAAGACTGG	TGAGGTAGCC	ACGGGGATGG	CCTCTAGACC	CAACTGGCTG	CTGGCAGGGG	780
CTGCTTTTGG	TAGCCTTGTG	TTCTTCACCC	ACTGGGTTTT	TGGAGAAAGT	TCTCTTGTTT	840
CCAGATGGGC	AGTGAGTGGG	CATCCACATC	CAGGGCCAGA	TCCTAACCCA	TTTGGAGGTG	900
CAGTACTGCT	GTGCTTGGCA	AGTGGATTGA	TGCTTCCATC	TTGTTTGTGG	TTTCGTGGTA	960
CTGGTTTGAT	CTGGTGGGTT	ACAGGAACAG	CTTCAGCTGC	GGGGCTCCTT	TACCTGCACA	1020
CATGGGCAGC	TGCTGTGTCT	GGCTGTGTCT	TCGCCATCTT	TACTGCATCC	ATGTGGCCCC	1080
AAACACTTGG	ACACCTTATT	AACTCAGGGA	CAAAACCTGG	GAAAACCATG	ACCATTGCCA	1140
TGATATTTTA	TCTTCTAGAA	ATATTTTCT	GTGCCTGGTG	CACAGCTTTT	AAGTTTGTCC	1200
CAGGAGGTGT	CTACGCTAGA	GAAAGATCAG	ATGTGCTTTT	GGGGACAATG	ATGTTAATTA	1260
TCGGGCTGAA	TATGCTATTT	GGTCCTAAGA	AAAACCTTGA	TTTGCTTCTT	CAAACAAAAA	1320
ACAGTTCTAA	AGTGCTTTTC	AGAAAGAGTG	AAAAATACAT	GAAACTTTTT	CTGTGGCTGC	1380
TTGTTGGTGT	GGGATTGTTG	GGATTAGGAC	TACGGCATAA	AGCCTATGAG	AGAAAAGTGG	1440
GCAAAGTGGC	ACCAACCAAA	GAGGTCTCTG	CTGCCATCTG	GCCTTTCAGG	TTTGGATATG	1500
ACAATGAAGG	GTGGTCTAGT	CTAGAAAGAT	CAGCTCACCT	GCTCAATGAA	ACAGGTGCAG	1560
ATTTTCATAAC	AATTTTGGAG	AGTGATGCTT	CTAAGCCCTA	TATGGGGAAC	AATGACTTAA	1620
CCATGTGGCT	AGGGGAAAAG	TTGGGTTTCT	ATACAGACTT	TGGTCCAAGC	ACAAGGTATC	1680
ACACTTGGGG	GATTATGGCT	TTGTCAAGAT	ACCCAATTGT	GAAATCTGAG	CATCACCTTC	1740
TTCCGTCACC	AGAGGGCGAG	ATCGCACCAG	CCATCACATT	GACCGTTAAC	ATTTGCGGCA	1800
AGCTGGTGGA	TTTGTCTGTG	ACACACTTTG	GGAACCACGA	AGATGACCTC	GACAGGAAAC	1860
TGCAGGCTAT	TGCTGTTTCA	AAACTACTGA	AAAGTAGCTC	TAATCAAGTG	ATATTTCTGG	1920
GATATATCAC	TTCAGCACCT	GGCTCCAGAG	ATTATCTACA	GCTCACTGAA	CATGGCAATG	1980
TGAAGGATAT	CGACAGCACT	GATCATGACA	GATGGTGTGA	ATACATTATG	TATCGAGGGC	2040
TGATCAGGTT	GGGTTATGCA	AGAATCTCCC	ATGCTGAACT	GAGTGATTCA	GAAATTGAGA	2100
TGGCAAAATT	TAGGATCCCT	GATGACCCCA	CTAATTATAG	AGACAACCAG	AAAGTGGTCA	2160
TAGACCACAG	AGAAGTTTCT	GAGAAAATTC	ATTTTAATCC	CAGATTTGGA	TCCTACAAAG	2220
AAGGACACAA	TTATGAAAAC	AACCATAATT	TTCATATGAA	TACTCCCAAA	TACTTTTTAT	2280
GAAACATTTA	AAACAAGAAG	TTATTGGCTG	GGAAAATCTA	AGAAAAAAG	TATGTAAGAT	2340
AAAAAGAAGA	GATTAATGAA	AGTGGGAAAA	TACACATGAA	GAACCTCAAC	TTAAAAACA	2400
CATGGTATCT	ATGCAGTGGG	AAATTACCTC	CATTTGTAAA	CTATGTTGCT	TAATAAAAC	2460
ATTTCTCTAA	AAAAAAAAAA	AAAAAA				

SEQ ID NO:41 Protein sequence:

Protein Accession #: NP_079363.1

1	11	21	31	41	51	
MTSLWREILL	ESLLGCVSWS	LYHDLGPMIY	YFPLQLELT	GLEGFSIAFL	SPIFLTITPF	60
WKLVNKKWML	TLLRIITIGS	IASFQAPNAK	LRLMVLALGV	SSSLIVQAVT	WWSGSHLQRY	120
LRIWGFILGQ	IVLVVLRWIY	TSLNPIWSYQ	MSNKVILTLS	AIATLDRIGT	DGDCSKPEEK	180
KTGEVATGMA	SRPNWLLAGA	AFGSLVFLTH	WVFGEVSLVS	RWAVSGHPHP	GPDPNPFGGA	240
VLLCLASGLM	LPSCLWFRGT	GLIWVVTGTA	SAAGLLYLHT	WAAAVSGCVF	AIFTASMWPQ	300
TLGHLINSGT	NPGKTMTIAM	IFYLLEIFFC	AWCTAFKFVP	GGVYARERSD	VLLGTMMLII	360

GLNMLFGPKK	NLDLLLQTKN	SSKVLFRKSE	KYMKLFLWLL	VGVGLLGLGL	RHKAYERKLG	420
KVAPTKEVSA	AIWPFRRGYD	NEGWSSLERS	AHLLNETGAD	FITILESDAS	KPYMGNNDLT	480
MWLGEKLGFY	TDFGPSTRYH	TWGIMALSRY	PIVKSEHLL	PSPEGEIAPA	ITLTVNISGK	540
LVDFVVTHFG	NHEDDLDRKL	QAIAVSKLLK	SSSNQVIFLG	YITSAPGSRD	YLQLTEHGNV	600
KDIDSTDHDR	WCEYIMYRGL	IRLGYARISH	AELSDSEIQM	AKFRIPDDPT	NYRDNQKVVI	660
DHREVSEKIH	FNPRFGSYKE	GHNYENNHNF	HMNTPKYFL			

TABLE 25:

Table 25 depicts SEQ ID NO: ~~Seq ID No.~~, UnigeneID, UnigeneTitle, Pkey, and ExAccn for all of the sequences in Table 26. SEQ ID NO: ~~Seq ID No.~~ links the nucleic acid and protein sequence information in Table 26 to Table 25.

Pkey: Unique Eos probeset identifier number
 ExAccn: Exemplar Accession number, Genbank accession number
 UnigeneID: Unigene number
 Unigene Title: Unigene gene title
SEQ ID NO: ~~Seq ID No.~~ SEQ ID NO: Sequence Identification Number found in Table 26

Pkey	ExAccn	UnigeneID	Unigene Title	<u>SEQ ID NO:</u> Seq ID No.
426101	AL049987		Homo sapiens mRNA; cDNA DKFZp564F112 (fr	<u>1-5</u> 4-4
419145	N99638		gb	<u>6 & 7</u> 5- & 6
426818	AA554827	Hs.340046	DKFZp434A0131 protein	<u>8 & 9</u> 7- & 8
421057	T58283		Homo sapiens cDNA	<u>10</u> 9
446619	AU076643	Hs.313	secreted phosphoprotein 1 (osteopontin,	<u>11 & 12</u> 40- & 41
431958	X63629	Hs.2877	cadherin 3, type 1, P-cadherin (placenta	<u>13 & 14</u> 42- & 43
409041	AB033025	Hs.50081	Hypothetical protein, XP_051860 (KIAA119	<u>15 & 16</u> 44- & 45
443162	T49951	Hs.9029	DKFZP434G032 protein	<u>17 & 18</u> 46- & 47
436385	BE551618	Hs.144097	ESTs	<u>19-21</u> 48-20
447033	AI357412	Hs.157601	ESTs	<u>22 & 23</u> 21- & 22
439608	AW864696	Hs.301732	hypothetical protein MGC5306	<u>24-28</u> 23-27
449032	AA045573	Hs.22900	nuclear factor (erythroid-derived 2)-lik	<u>29 & 30</u> 28- & 29
442577	AA292998	Hs.163900	ESTs	<u>31 & 32</u> 30- & 34
429970	AK000072	Hs.227059	chloride channel, calcium activated, fam	<u>33 & 34</u> 32- & 33
424566	M16801	Hs.1790	nuclear receptor subfamily 3, group C, m	<u>35 & 36</u> 34- & 35
457407	AA505035	Hs.345911	ESTs	<u>37</u> 36
430378	Z29572	Hs.2556	tumor necrosis factor receptor superfam	<u>38 & 39</u> 37- & 38
417332	AW972717	Hs.288462	hypothetical protein FLJ21511	<u>40 & 41</u> 39- & 40

Table 26

SEQ ID NO:1 ~~Seq ID NO:1~~ DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
CAATATAGTA	CAATAACTAT	TTGCATGACA	TTTACATCGG	ATATTATGAG	TGATCTAGAG	60
TTGATATGAA	GTATATGGGA	GGATGTGCAA	AGGTGATGTG	CAAATACTAT	GTCATTTTAT	120
AGGGGGGACT	TGAGTATCCT	TTGTTACCCT	CAGGAGATCC	TGAAACCAGT	CCCCCATGGA	180
TACTGAGGGC	TGACTGTATA	GTCCTATCCT	CACGGAACCT	TCATTCTAAT	GGGGGAAGAC	240
TGACTATAAA	CAAAATATAT	GTAATAGGTG	GTGGTAAGTA	CCGTGGAGAA	GTAACAAATG	300
GGGCAAAGTG	AGTTATACAG	CTCCATTCTT	AGAAACCTTG	GAGTACTTTT	CTTAGTTTAT	360
ACTCGTGGTG	GTTTCCTTTT	GTCTCCTTTA	TTACATGGGA	CTCTGACATG	TGCCCATAGC	420
TAGGGTGACA	GTAGGATCTA	CCCGATAGTA	GGGTGGCAGT	AGGATCTACC	CAAAAAGCGT	480
CCTGCTGATA	CAGGACCAAA	GCATCCTGTT	GTTCTCGAGC	CTATAAAAAG	AGCTAATGGT	540
GTTGCTTCTC	TTAACTGTGG	CCTCCTACAC	TGTGTTTTGG	ATGATTGGTG	ATGTCTTGGA	600
TATTCTGTTT	CTTTGGAAC	TTGAATATAC	AACACTTTAC	TAGGGAATTA	GCAATGGAAG	660
CAGAGCAAAG	ATGTACAGAG	GAAACAATGC	GTAACCTCTGA	TGGAATTGAA	GTCTAGAGGC	720
AGCAGAGAGC	TTAAATTACA	GCTTTAAAAA	TTTTTATTTT	TTAGAGGGAA	TTTACTTGGG	780
AGTAACAGCA	GTAATAGTTA	ACGGAGCCAG	AATGCTTGAG	TCATATAATT	GCAAAGCAGA	840
GTTGGGAGCA	ACAGATGCTA	AAGAGTAGTT	GCTGTAGTTC	CTCTTTGGGT	CGTAGGAGCA	900
GTTGTCATAT	TACTATATAG	CTACTGCATG	AAGAAGAGTT	CTTAGTGAGG	CCTGGGTGAA	960
CAGCTCTTCT	TAGTATTCTG	TGTGACCCCA	TTTGACCTTT	TAACAAATCC	CTAAGTAAAT	1020
AAATAGCCCC	TCAGGAAAAC	TAAGTTTTTC	TCTGCTGTTT	TTTTTGCTTGA	GAGAGCTATA	1080
ACTGTAATAG	ACTTATATTT	CTGAACATTT	TAGTGCTTGC	CAATATTTGG	TAATATTTAT	1140
GTTTCCCTATA	TTTGTAATGA	ACATTCTTCT	TCCGGTACAT	TTTTTGTTAA	ATTATTGTTT	1200
GATGGATAAA	AGTTCACCTT	TTATTGTATA	AAATTGACTG	AGATTAATTT	ATACACATTG	1260
ACAATGGGTA	AATAGAATTT	TTCAGATTAT	TAAAGCTGA	AGGATGACCA	CGTAAGCAAA	1320
AAAAAAAAAA	AAAAAACCAA	CAAAAATAAA	CCCCAACCCC	TCAAACAATT	TCGAACACGA	1380
AACATTCTTC	TGATGCCGGC	ATCCCTGCTT	GCAGGTGTGA	AGGGGGCAGG	AATCAGCGAG	1440
GTGTCCTGGG	CTGAGTCCCC	GGGGAAGAAT	ATGAT			

SEQ ID NO:2 ~~Seq ID NO:2~~ DNA sequence

Nucleic Acid Accession #: X83301.1

1	11	21	31	41	51	
GCAAAGCCAG	CTGGGCTCCT	GAGTCCGGTG	GGTACTTGGA	GAACCTACTA	CGTCTAGCTG	60
GAGGATTGTA	AATGCACCAA	TCAGCATGCT	GTGTCTAGCT	CAAGATTTTC	TCCATCCCCCT	120
TATTTTGGGC	CAGTGGCTGT	CATTACATAT	GAGATGAGTC	TCTTGAAGAC	TACAGATGAA	180
CTCAAGCTCC	ATGAGGAGAT	GTTTCATTGT	CGAGAGCAGT	CATGATGGCC	TGCACTCCAC	240
ACAATGCAAC	AGAGTGAAAG	AGCAGGTTCT	GCTTCTTTGG	TGTAGTCCTG	AAGCTTCCTA	300
AGAAACTTCA	CATCAGGTGA	TGGATAGGAG	CAACCTGTGA	AAACCAGCCT	TAGACTATTT	360
TTCAAACAGG	CTGGTGAATT	ACCAGATCTC	CGTCAAGTGC	AGTAACCAGT	TCAAGTTGGA	420
AGTGTGTCTT	TTGAATGCAG	AGAACAAAGT	CGTGACAAC	CAGGCTGGGA	CCCAGGGCCA	480
GCTGAAGGTG	CTGGGTGCCA	ACCTCTGGTG	GCCGTACCTG	ATGCACGAAC	ACCCGCGCTA	540
CCTGTACTCC	TGGGAGGATG	GTGATTGCTC	ACACCAAAGC	CTTGACCCCT	TCCCAGCCTG	600
TGACCTTTGG	GACCAACTCC	ACCTACGCAG	CAGACAAGGG	GGCTCTGTAT	GTGGATGTGA	660
TCCGTGTGAA	CAGCTACTAC	TCTTGGTATC	GCAACTACGG	GCACCTGGAG	TTGATTGCGC	720
TGCAGCTGGC	CGCCAGTTT	GAGAATTGGT	GTGAGACATC	ACAATCCCAT	TATTCAGAGC	780
GCGTATGGAG	TGGAAACGCT	TGTAGGGTTT	CACCAGGGCT	GGTGAATTAC	CAGATCTCCG	840
TCAAGTGCAG	TAACCAGTTC	AAGTTGGAAG	TATGTCTTTT	GAATGCAGAA	AACAAAGTCG	900
TGGACAACCA	GGCTGGGACC	CAGGGCCAGC	TGAAGGTGCT	GGTGCCAACC	TCTGGTGGCC	960
GTACCTGATG	CACGAACACC	CCGCCTACCT	GTAATCGTGG	GAGGATGGTG	ATTGCTCACA	1020
CCAAAGCCTT	GGACCCCTCC	CAGCCTGTGA	CCTTTGGGAC	CAACTCCACC	TACGCAGCAG	1080
ACAAGGGGGC	TCTGTATGTG	GATGTGATCC	GTGTGAACAG	CTACTACTCT	TGGTATCGCA	1140
ACTACGGGCA	CCTGGAGTTG	ATTCGGCTGC	AGGCCCTGCA	GCTGGCCGCC	CAGTTTGTGA	1200
ATTGGTGTAA	GACATCACAA	TCCCATATT	CAGAGCGCGT	ATGGAGTGGA	AACGCTTGTA	1260

GGGTTTCACC	AGTCTTTCCC	AGGGAAC TCC	GATGAAGTGT	TCCAACAAAA	TGAGCGAGTG	1320
AACCAAGAAG	AGGATGACAT	TAGATCCAGG	AGATACAACA	GAGGAGATAA	TCTCCAGGAT	1380
GCCTGTGAAG	AAAGATCCCCT	GGATCCCAGG	ATGATTATAG	GACAAGTTGT	TCATAATCCA	1440
GCAGGCCAGA	AGACTTCCAG	GGAAACTCAT	TTCAAGATGA	AAATGGACCA	GCCGCAGTGG	1500
CTCACGCCTG	TAATACCAGC	ACTTTGGGAG	GCTGAGGCGG	GCGGATCACT	TGAGGTCAAG	1560
AGTTTGAAAC	TAGCCTGGCC	AACGTGGCAA	AACTCCATCT	CTATTAAAGA	TACAAAAATT	1620
AGCCAGGCAT	AGTGGTGCAT	GCCTGTAGTC	CCAGCTACTT	GGGATGCTGA	GGCAGGAAGA	1680
ATTGCTTGAA	CCTGGGAGGC	AGAGTCTGCG	GTGACCGAGA	TCATGCCACT	GCACTCCAGC	1740
CTGGGTGACA	GAGCCAGACT	CCGTCTCTAC	TAAAAAATAA	AAAAAATAA	AAA	

SEQ ID NO:3 ~~Seq ID NO:3~~ Protein sequence:
Protein Accession #: CAA58280.1

1	11	21	31	41	51	
MDRSNPVKPA	LDYFSNRLVN	YQISVKCSNQ	FKLEVCLLNA	ENKVVDNQAG	TQGQLKVLGA	60
NLWWPYLMHE	HPAYLYSWED	GDCSHQSLGP	LPACDLWDQL	HLRSRQGGSV	CGCDPCEQLL	120
LLVSQLRAPG	VDSAAAGRPV					

SEQ ID NO:4 ~~Seq ID NO:4~~ DNA sequence
Nucleic Acid Accession #: BC002622.1

1	11	21	31	41	51	
GGCACGAGGC	TCCGCCCGCG	GCCGGGATGC	ACTAGGC AAA	GCCAGCTGGG	CTCCTGAGTC	60
CGGTGGGTAC	TTGGAGAACT	TACTACGTCT	AGCTGGAGGA	TTGTAAATGC	ACCAATCAGC	120
ATGCTGTGTC	TAGCTCAAGA	TTTTCTCCAT	CCCCTTATTT	TGGGCCAGTG	GCTGTCATTA	180
CATATGAGAA	CTCAAGCTCC	ATGAGGAGAT	GTTTCATTGT	CGAGAGCAGT	CATGATGGCC	240
TGCACTCCAC	ACAATGCAAC	AGAGTGAAAG	AGCAGGTTCT	GCTTCTTTGG	TGTAGTCCTG	300
AAGCTTCCTA	AGAACTTCA	CATCAGGTGA	TGGATAGGAG	CAACCCTGTA	AAACCAGCCT	360
TAGACTATTT	TTCAAACAGG	CTGGTGAATT	ACCAGATCTC	CGTCAAGTGC	AGTAACCAGT	420
TCAAGTTGGA	AGTGTGTCTT	TTGAATGCAG	AAAACAAAGT	CGTGGACAAC	CAGGCTGGGA	480
CCCAGGGCCA	GCTGAAGGTG	CTGGGTGCCA	ACCTCTGGTG	GCCGTACCTG	ATGCACGAAC	540
ACCCCGCCTA	CCTGTACTCG	TGGGAGGATG	GTGATTGCTC	ACACCAAAGC	CTTGGACCCC	600
TCCCAGCCTG	TGACCTTTGT	GACCAACTCC	ACCTACGCAG	CAGACAAGGG	GGCTCTGTAT	660
GTGGATGTGA	TCCGTGTGAA	CAGCTACTAC	TCTTGGTATC	GCAACTACGG	GCACCTGGAG	720
TTGATTCAGC	TGCAGCTGGC	CGCCCAGTTT	GAGAATTGGT	GTAAGACATC	ACAATCCCAT	780
TATTCAGAGC	GCGTATGGAG	TGGAAACGCT	TGTAGGGTTT	CACCAGTCTT	TCCCAGGGAA	840
CTCCGATGAA	GTGTTCCAAC	AAAATGAGCG	AGTGAACCAA	GAAGAGGATG	ACATTAGATC	900
CAGGAGATAC	AACAGAGGAG	ATAATCTCCA	GGATGCCTGT	GAAGAAAGAT	CCCTGGATCC	960
CAGGATGATT	ATAGGACAAG	TTGTTTCATA	TCCAGCAGGC	CAGAAGACTT	CCAGGGAAAC	1020
TCATTCAAGG	AGGTGAAAAT	GATGGATGAC	TCCTCCAAGA	TGAAAATGGA	CCAGCCGCAG	1080
TGGCTCACGC	CTGTAATACC	AGCACTTTGG	GAGGCTGAGG	CAGGCGGATC	ACTTGAGGTC	1140
AGGAGTTTGA	AACTAGCCTG	GCCAACGTGG	CAAACTCCA	TCTCTATTAA	AAATACAAAA	1200
ATTAGCCAAG	CATAGTGGTG	CATGCCTGTA	GTCCCAGCTA	CTTGGGATGC	TGAGGCAGGA	1260
AGAAATTGCTT	GAACCTGGGA	GGCAGAGTCT	ACAGTGAGCC	GAGATCATGC	CACTGCACTC	1320
CAGCCTGGGC	AACACAGTGA	GACTCCATCT	CAAAAAAATA	AAAAAATAA	AA	

SEQ ID NO:5 ~~Seq ID NO:5~~ Protein sequence:
Protein Accession #: AAH02622.1

1	11	21	31	41	51	
MDRSNPVKPA	LDYFSNRLVN	YQISVKCSNQ	FKLEVCLLNA	ENKVVDNQAG	TQGQLKVLGA	60
NLWWPYLMHE	HPAYLYSWED	GDCSHQSLGP	LPACDLCDQL	HLRSRQGGSV	CGCDPCEQLL	120
LLVSQLRAPG	VDSAAAGRPV					

SEQ ID NO:6 ~~Seq ID NO: 6~~ DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
ACCTGAGATC	AGGAGTTCGA	GATCAGCCTG	ACCAATAGGG	TGAAACCCCG	TCTCTACTAA	60
AAATACAAAA	AATTAGCTGG	ACACGATGGT	GGGTGCCTGT	GGTCCCGGCT	ACTCGGGAGG	120
CTGAGACAGG	AGAATCAGTT	GACCTGGGAG	TTGGTGGTTG	CAGTGAGCTG	AGATCACACC	180
ATTGCATTCC	AAGCCTGGGC	AACAAGAGTG	AAACTCCATC	GCAAAAAAAAA	AAAAGAAGGG	240
GCATAATTTG	TGGATGAGGA	TTGGATATAA	GGTAAAGGAT	GGGACATTCT	TGGACTTACA	300
GATGGTGTGA	TTGCCTGGCT	AGAAGAAGAA	TTCCCGGTCA	AAAAGAAACC	ATCAGCTTTC	360
CAAGTGTGAA	AGAGAGATAA	ATCTGTGAAG	ATTATAGGGA	CTACAGGAAA	CTTAATCTTT	420
TTCTTTGAAA	AAGCAATTGT	AGCAAAAAAA	AAGAAAATTT	CTTACTGTCA	TCTAAAATTG	480
ACATGGACAT	CTTAGTGGAC	TAGAAGTTAA	GGGCATAAAT	TCTCCAGTG	ATTTTAAATT	540
TTAGCATTGT	GATTAACACC	TTCTAAAATT	GCCAGAACTT	AATAAATAAT	TGCTTTTCAT	600
TATTAGTATG	CCATCAAATT	TAGTAGCTGT	TTCAGGCTTT	AATGTGTCAA	GCCTAAAATC	660
CAGATTTTTG	AGGATCTTCT	CCCTCTTAAA	AGAGTATTCA	GTTAACTGCC	GTAGAAATAC	720
ACATGTATAC	AAGGGCACTG	TATACATCAG	TCTAAAAAAT	AAAAATATGT	ATACGTTCTG	780
GTGAGTCTAG	CACAGCATTG	CCCAATAGAA	ATACCAATGG	AGGTCACAAA	TGTGGCCCAT	840
ATAGGTTAAT	TGGTAAATTT	TCTNATAGNC	ACC			

SEQ ID NO:7 ~~Seq ID NO: 7~~ DNA sequence

Nucleic Acid Accession #: AK000942

Coding sequence: 1204-1503

1	11	21	31	41	51	
GTAAAGGAAT	GTCTTTTTTAA	TTCAGCTTTT	CTTTTCTCCA	TGCTAGTGTT	ATCAGGTTTT	60
GGTATTTATT	TACTTACAGC	ATATGTTATG	AAGCTGGTTT	GAAAATTGGT	TTTAGATATA	120
TCTGCAAGTT	TACTACTTTG	ACTGTAAAAA	AAAAAATGA	AAAAGTAGTT	GACATCTGTC	180
CTCAGAAGAA	GTTTGCAGGT	TGCATATTTG	TGTGTAAATA	CACAGGCTAA	AAGGTAATTT	240
ATGTTCCCTT	GGAATTGAAA	TGGTCAGTGG	CCCGTTACAG	AAACTTATCA	GTCATATATC	300
AGCACCAGTT	CATTCTTTTG	CACCTTAGGG	ACCATCTGTC	CCCTGAGGTG	ACCTGAGAAA	360
CAACCAGTTG	CCCACAGACT	GTTATTTCTT	CAAGTGAGCC	AGGATTTGAT	TTCCTGGCCT	420
TATATTCTAT	TTTTAGTGTA	CAGTGCTTTG	ATTTTTTGGA	AAAACTAAAT	TTTAAACATA	480
TTTGAAAAAT	GTTATAAGAC	TTGGACATTA	AGTCTGTTGA	TAGCCAAAGT	CAGTTTACCA	540
AAGTAAAAACA	AATAAATTCT	ATGCTTCTTC	ATTGTCAAAG	AGCAGTCTGC	CATCATGTGG	600
ATATAAATGG	ACTATGTAAA	GTGACATGGT	GCTTACTCTC	TACCTAATAA	TAGCCTCCCT	660
CCTGTTCCAA	CAAGATAACC	AACAGGTATA	TTTAATTTAC	CAGTTAATAT	GTTTTGGATA	720
ATTGGCTGCC	TTGAAATGCT	ATATGTTTTA	TAGTACATCA	TAGCTTTAGT	TTTCTTCATA	780
AGGAAATTAC	AGTTACATCC	TGGCTAACAT	GGTGAAACTC	CATCTCTACT	AAAAATACAA	840
AAAATTAGCC	GGGCGTGGTG	GCGGGCACTT	GTAGTCCCAG	CTACTCGGGA	GGCTGAGGCA	900
GGAGAATGGC	GTGAACCCAG	GAGGCGGAGG	TTGCAGTGAG	CCGAGATCGT	GCCACTGTAC	960
TCTGGCCTGG	GAGACAGAGC	GAGACTCCAT	CTCAAAAAAA	AAAAAAAAAAA	AAAAAAAAAGA	1020
GAGAGAGAGA	CCTGGAGTAG	AGATTCTGTC	AAAGAACTTT	TTCTTTCTTG	AGAAGCATCT	1080
GAAATGGAAT	CTGTTGTCTC	TTCGAAATAT	GTAAGTCTGT	AACAGTGAAA	CAACCCTCAG	1140
AGTATGCCTT	CGTGTGGGCT	ACTCGTTGTG	GTTTTGAACT	TGGGGGAACT	GTCTGTGTTT	1200
GGGTCAAGAA	TATGCAACTG	GCTGGGCACA	TTGGCTCACG	CCTGTAATCC	CAGCAATTTG	1260
GGAGGCTGAG	GCAGGCGGAT	CACCTGAGGT	CAGGGCTTCA	AGACCAGACT	GGCCAACATG	1320
GTGAAACCCC	GTCTCTACTG	AAAATACAAA	AATTAGCTGG	GCATGGTGGC	AGGTGCCTGT	1380
AATCCCAGCT	ACTCGGGAGG	CTGACGTGAG	AGAATCGCTT	GAACCCGGGA	GTTGGAGGTT	1440
GCAGTGAGCC	GAGATTGCAC	CATTGCACTC	CAGCTTGGGC	AACAAGAGTG	AAACTCTTGT	1500
CTCAG						

SEQ ID NO:8 ~~Seq ID NO:8~~ DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
GACTAGGCTG	GGCAACATAG	TGAGACCTCA	TCTCTAAAAT	TAAAAAAATA	AAAGCCACCA	60
GAAAAAAACC	TAAAAACATG	CCAAGTGACA	TCAGTCTTTG	ATGAAAAATG	CAGCAGAAGA	120
GTGATGCCAT	GGGTGGGGGT	GGGAAATGCT	ATTTTCAGCAG	AGAGGGAGCT	GTCATGGAAG	180
ACACCATGTG	GCTGGGCACG	GTGGCTCACA	CCTGTAATCC	CAGCACTTTG	GGAGATAGAG	240
GCAGGTGGAT	CCCTTGAGCT	TAGGAATTTG	AGACTAGCCT	GGGCAATAAG	AGTGAAACTC	300
CATCTCAAAA	AAAAAAAAAA	AAAAAGGTGC	ATGAAACATA	TGAAGCAAAA	AGTGAAAGTC	360
CCCATTCTTT	TCCTTTTTC	AGAGGTGATT	TTTGTGGCCA	ATCTGGTTTC	ATCCCTCCC	420
AGACACTTTT	CTAGGCATCT	ATGCGCCTCT	ATTACATAT	AAACAAAATA	GGAGTTTTC	480
TGTGCTTCCC	TTAAATGGCA	TATGTATCTT	TCACTCTTTT	TTTTCACCTA	GTGGATCTTT	540
AATACCTTAA	AAGCTCAACC	TGGGCTTGGT	GCGGTGGCTC	ATACGTGTAA	TCCCAGGCCT	600
TTGGGAGGCC	AAGGTGGGAG	GATCACTTGA	GCTCAGGAGT	TCCAGACCAT	TCCAAAGCAA	660
AAACAAAAGG	ATTTTGAGAT	CAGTGTGGGC	AACTTAGCAA	AACACCATCT	CTTAAAAAAA	720
AAAAAAAAAA						

SEQ ID NO:9 ~~Seq ID NO:9~~ DNA sequence

Nucleic Acid Accession #: BC010433.1

Coding sequence: 3-335

1	11	21	31	41	51	
GGTCGCCCTC	CGTCGTGGTC	TGGCGTGTAT	TCCGAGCCTT	GGTGTCTGGC	GGTTTCCGAG	60
CGTTGGTGTC	TGGCGGTTTC	CGAGCGTTGG	TGTCTGGCGG	TTTCCGACCG	TTGGTGTCTG	120
GCGGTTTCCG	ACCGTTGGTG	TCTGGCACGC	GCCACCCTCT	CTTGCTTTGG	TTGCGCCATG	180
CCGATGTACC	AGACAAGAAG	ACAAGAAAAT	GATTTGAGGA	CAGCTTCAAT	CGCGGTGTGA	240
AGAAGAAAGC	AGCAAAACGA	CCACTGAAAA	CAACGCCGGT	GGCAAAATAT	CCAAAGAAAG	300
GGTCCCAAGC	GGTACATCGT	CATAGCCGGA	AACAGTCAGA	GCCACCAGCC	AATGATCTTT	360
TCAATGCTGC	GAAAGCTGCC	AAAAGTGACA	TGCAGCACCG	AGAAGTCCGC	GTGAAGTGCG	420
TGAAGGCTCT	GAAAGGGCTG	TACGGTAACC	GGGACCTGAC	CGCACGCCTG	GAGCTCTTCA	480
CTGGCCGCTT	CAAGGACTGG	ATGGTTTCCA	TGATCATGGA	CAGAGAGTAC	AGTGTGGCAG	540
TGGAGGCCGT	CAGATTACTG	ATACTTATCC	TTAAGAACAT	GGAAGGGGTG	CTGATGGACG	600
TGGACTGTGA	GAGCGTCTAC	CCCATTGTGT	AGGCCTCTAA	TTGAGGCCTG	GCCTCTGCTG	660
TGGGTGAATT	TCTGTACTGG	AAACTTTTCT	ACCCTGAGTG	CGAGATAAGA	ACGATGGGTG	720
GAAGAGAGCA	ACGCCAGAGC	CCAGGTGCCC	AGAGGACTTT	CTTCCAGCTT	CTGCTGTCTT	780
TCTTTGTGGA	GAGCAAGCTC	CACGACCACG	CTGCTTACTT	AGTAGACAAC	CTGTGGGACT	840
GTGCAGGGAC	TCAGCTGAAG	GACTGGGAGG	GTCTGACAAG	CCTGCTGCTG	GAGAAGGACC	900
AGAGCACGTG	CCACATGGAG	CCAGGGCCAG	GGACCTTCCA	CCTCCTAGGG	TGAAACCAGG	960
AGAGATTGCT	TGCTTCACTT	GTACAAGGCA	GGAACGGTGG	CATGGGGTGG	GGGAAACTTG	1020
GAGTTGGAAG	GTGGCTAATC	TTTGATTCTA	TGTTTTTGAT	CCTCCTGGCA	CTCCAGACCT	1080
GGGTGATGTG	CAGGAGAGCA	CACTGATAGA	AATCCTTGTC	TCCAGTGCCC	AGCAACTCCT	1140
GCCTCAGCCT	CCCAGACAGC	TGGGACTACA	GGCGCCCGCC	ACCACGCCTG	GCTAACTTTT	1200
TTGTGTTTTT	AGTAGAGACG	GGTTTTACAC	GTGTTGGCCA	GGATGGTCTT	GATCTCTTGA	1260
CCTTGTGATC	CACCTGCCTC	ATCATCCCAA	AGTGCTGGGA	TTACAGGCGT	GAGCCACTGC	1320
GCCCAGCATG	TTAGACAATT	TTTAATTTCAT	CCTCTCTGTG	CTGTTGTTTT	CTCAGCTGTG	1380
AAAGGAATAT	TCTGGTGGGG	ACAAGTTTAC	AGAGTTGCTG	AGAGGGTCTC	ATGACATGAA	1440
GGTACTGGCC	TTGGCACAGT	GCCTGGGGGG	GCGGGGACTC	CGCACATGCC	TGTGATGTCA	1500
CAGTTACTGT	CAGTTCACAG	CGAACCTTCC	CTCCTTTTCC	TGTTGACTTT	CCCACACTCC	1560
TGTAACCCCTC	CCTCCCTCCC	TTCTTCTCTT	CTCTCTCTCT	CACTCACGCA	CACGCACACA	1620
CACACACACA	CACACACACA	CACACACTCC	ATTCACTGTC	TCCATGACTC	TGGAGTAAAC	1680
TAACGTCTCG	AGTTGCCATT	GGAAGCCCCG	TTGTCTTCAT	TTAGACTTTC	ATGGGTTTATA	1740
GGCACTTTTG	ACTTCTTGGG	GTCTTCTTTC	AGTTAAAAAA	AAAAATTAGA	AAATTAGGCC	1800
GGGCGTGGTG	GCACATGCCT	GTAATCCACG	CACCTTGGCC	TCCCAAAGTG	CTGGGATTAC	1860
AGGAGTGAGC	CACCATGCCC	AGCCTCCGTT	GTCCTCATTT	AGACTTTCAT	GGGTTATAGG	1920
CACTTTTGAC	TTCCTGGGGT	CCTTCTTCAG	TTAAAAAAA	AAAAAAA		

SEQ ID NO:10 ~~Seq ID NO: 10~~ DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
AGTGGNTCCC	CCGGNCTGCA	GGAATTCGGC	ACGAGATCAT	GATGGCTAAT	ATTCCTGAG	60
CACCTTTCAT	TCAGGCATGA	TGCCAGGTGC	ACCAACTTAC	TTAATCCTCA	TAGCCACCAC	120
CTGAGCAAGC	TCCTGTTTTA	TAAATGGACC	AGTTCCTGTT	GCTGTTGTAC	AAGTTATTTT	180
CTTTCTATAA	CGTCCTCCTT	GTCCTCCTTC	CACATTCTTA	AAGAACTTTT	CCCTTCCTTT	240
AAAGTACTCA	GGGAGCCCTG	CATTGCTTCT	TGAAGCCTTC	TCCAGCTTCA	TCATCTCACA	300
GTGGTCTCTC	TTTTCACTAA	ATGTCCAATA	TGCTGCACAT	AAGTACCCCA	AAGTTAGCAC	360
AGGAATTGTT	CCATGGCTGT	CATATATGTT	AAAAATCATT	AAAAGTTCAT	TTTTTCTCTC	420
ATTATGGGAA	GGATACATGC	TCCTACTAGT	AAATTTAGTA	GGTAGAAAAA	AATTATCACT	480
ATCTAGACTG	CTTTCATTTC	AGTCTTTATG	CATAGCTTTC	GTGTCTGCCT	ATTTTTACCT	540
TGTGTTTGTA	ACTTACTATT	ATAAAATATG	CGTCTCTATG	TTCATTGTCA	ACGATTATTT	600
ACAATAACAT	GGAGTGGATT	TACATGTATT	CTCTATATTT	GGATTAAAGG	AGATAGAGTA	660
TGTGAAATTA	AATGGGAGAA	GTATCTGATA	CATAACAGGC	AATACAAATA	TTATCACATA	720
GCGTCAATTT	ATTTGTGAAT	ATTGAAAGCT	CCAAAAAAGA	AAAAAAGTTT	TTTTTTAATT	780
CCCGTAATTA	CTTATTGCAG	TATTGTGTTT	ATACAAACTG	CTCAGTCATT	TTGGAGAAAT	840
AACAATTTTT	TTCCTCATCA	TGAAGTAAGG	TATGCTCACT	GCAAAAAAAA	TCTAGAAAAT	900
AAAGAGGAAC	ATGCTAAAGA	AAAGAATACT	CCCATATAAT	CTCTGTCTTC	ATAAATAATC	960
TTTTGTAAACG	CTTATACACT	GCTGGTGGGA	ATGTAAATTA	GTCAGCCAT	TGTGAAAAGT	1020
AGCGTAGCAA	TTCCTTGAAA	AACTTAAAT	AGATTTACCG	TTCAACCCAG	CAATCCCATT	1080
ATTGGGCATA	TACCCAGTGG	AATGTAAATC	ATCCTGCCAT	AAAAACACAT	GCACATGTAT	1140
GTTTATTGCA	GCACTATTCA	CAATAGCAAA	GACATGGAAT	CAACCTATAT	GCCCATCAAT	1200
AGTAGACTGA	ATAAAGAAAA	TATGGTACAT	ATTACACCACA	GAATACTAAG	CAGCCATAAA	1260
AAAAAA						

SEQ ID NO:11 ~~Seq ID NO: 11~~ DNA sequence

Nucleic Acid Accession #: NM_000582.1

Coding sequence: 88-990

1	11	21	31	41	51	
GCAGAGCACA	GCATCGTCGG	GACCAGACTC	GTCTCAGGCC	AGTTGCAGCC	TTCTCAGCCA	60
AACGCCGACC	AAGGAAACT	CACTACCATG	AGAATTGCAG	TGATTTGCTT	TTGCCTCCTA	120
GGCATCACCT	GTGCCATACC	AGTTAAACAG	GCTGATTCTG	GAAGTTCTGA	GGAAAAGCAG	180
CTTTACAACA	AATACCCAGA	TGCTGTGGCC	ACATGGCTAA	ACCCTGACCC	ATCTCAGAAG	240
CAGAATCTCC	TAGCCCCACA	GACCCTTCCA	AGTAAGTCCA	ACGAAAGCCA	TGACCACATG	300
GATGATATGG	ATGATGAAGA	TGATGATGAC	CATGTGGACA	GCCAGGACTC	CATTGACTCG	360
AACGACTCTG	ATGATGTAGA	TGACACTGAT	GATTCTCACC	AGTCTGATGA	GTCTCACCAT	420
TCTGATGAAT	CTGATGAACT	GGTCACTGAT	TTTCCCACGG	ACCTGCCAGC	AACCGAAGTT	480
TTCACTCCAG	TTGTCCCCAC	AGTAGACACA	TATGATGGCC	GAGGTGATAG	TGTGGTTTAT	540
GGACTGAGGT	CAAAATCTAA	GAAGTTTCGC	AGACCTGACA	TCCAGTACCC	TGATGCTACA	600
GACGAGGACA	TCACCTCACA	CATGGAAAGC	GAGGAGTTGA	ATGGTGCATA	CAAGGCCATC	660
CCCGTTGCC	AGGACCTGAA	CGCGCCTTCT	GATTGGGACA	GCCGTGGGAA	GGACAGTTAT	720
GAAACGAGTC	AGCTGGATGA	CCAGAGTGCT	GAAACCCACA	GCCACAAGCA	GTCCAGATTA	780
TATAAGCGGA	AAGCCAATGA	TGAGAGCAAT	GAGCATTCCG	ATGTGATTGA	TAGTCAGGAA	840
CTTTCCAAAG	TCAGCCGTGA	ATTCCACAGC	CATGAATTTC	ACAGCCATGA	AGATATGCTG	900
GTTGTAGACC	CCAAAAGTAA	GGAAGAAGAT	AAACACCTGA	AATTTTCGTAT	TTCTCATGAA	960
TTAGATAGTG	CATCTTCTGA	GGTCAATTAA	AAGGAGAAAA	AATACAATTT	CTCACTTTGC	1020
ATTTAGTCAA	AAGAAAAAAT	GCTTTATAGC	AAAATGAAAG	AGAACATGAA	ATGCTTCTTT	1080
CTCAGTTTAT	TGGTTGAATG	TGTATCTATT	TGAGTCTGGA	AATAACTAAT	GTGTTTGATA	1140
ATTAGTTTAG	TTTGTGGCTT	CATGGAAACT	CCCTGTAAC	TAAAAGCTTC	AGGGTTATGT	1200
CTATGTTTAT	TCTATAGAAG	AAATGCAAACT	TATCATGTA	TTTTAATATT	TGTTATTCTC	1260
TCATGAATAG	AAATTTATGT	AGAAGCAAACT	AAAATACTTT	TACCCACTTA	AAAAGAGAAT	1320
ATAACATTTT	ATGTCACAT	AATCTTTTGT	TTTTTAAGTT	AGTGTATATT	TTGTTGTGAT	1380
TATCTTTTTG	TGGTGTGAAT	AAATCTTTTA	TCTTGAATGT	AATAAGAATT	TGGTGGTGTG	1440
AATTGCTTAT	TTGTTTTCCC	ACGGTTGTCC	AGCAATTAAT	AAAACATAAC	CTTTTTTACT	1500
GCCTAAAAAA	AAAAAATAAA	AAAA				

~~SEQ ID NO:12~~ ~~Seq ID NO:12~~ Protein sequence:
Protein Accession #: NP_000573.1

1	11	21	31	41	51	
MRIAVICFCL	LGITCAIPVK	QADSGSSEBK	QLYNKYPDAV	ATWLNPDPSQ	KQNLLAPQTL	60
PSKSNESH DH	MDDMDEDDDD	DHVDSQDSID	SNDSDDVDDT	DDSHQSDESH	HSDESDELVT	120
DFPTDLPATE	VFTPVVPTVD	TYDGRGDSVV	YGLRSKSKKF	RRPDIQYPDA	TDEDITSHME	180
SEELNGAYKA	IPVAQDLNAP	SDWDSRGKDS	YETSQLDDQS	AETHSHKQSR	LYKRKANDES	240
NEHSDVIDSQ	ELSKVSREFH	SHEFHSHEDM	LVVDPKSKEE	DKHLKFRISH	ELDSASSEVN	

~~SEQ ID NO:13~~ ~~Seq ID NO:13~~ DNA sequence
Nucleic Acid Accession #: NM_001793
Coding sequence: 71-2560

1	11	21	31	41	51	
AAAGGGGCAA	GAGCTGAGCG	GAACACCGGC	CCGCCGTCGC	GGCAGCTGCT	TCACCCCTCT	60
CTCTGCAGCC	ATGGGGCTCC	CTCGTGGACC	TCTCGCGTCT	CTCCTCCTTC	TCCAGGTTTG	120
CTGGCTGCAG	TGCGCGGCCT	CCGAGCCGTG	CCGGGCGGTC	TTCAGGGAGG	CTGAAGTGAC	180
CTTGAGAGCG	GGAGGCGCGG	AGCAGGAGCC	CGGCCAGGCG	CTGGGGAAAG	TATTCATGGG	240
CTGCCCTGGG	CAAGAGCCAG	CTCTGTTTAG	CACTGATAAT	GATGACTTCA	CTGTGCGGAA	300
TGGCGAGACA	GTCCAGGAAA	GAAGGTCAC	GAAGGAAAGG	AATCCATTGA	AGATCTTCCC	360
ATCCAAACGT	ATCTTACGAA	GACACAAGAG	AGATTGGGTG	GTTGCTCCAA	TATCTGTCCC	420
TGAAAATGGC	AAGGGTCCCT	TCCCCCAGAG	ACTGAATCAG	CTCAAGTCTA	ATAAAGATAG	480
AGACACCAAG	ATTTTCTACA	GCATCACGGG	GCCGGGGGCA	GACAGCCCCC	CTGAGGGTGT	540
CTTCGCTGTA	GAGAAGGAGA	CAGGCTGGTT	GTTGTTGAAT	AAGCCACTGG	ACCGGGAGGA	600
GATTGCCAAG	TATGAGCTCT	TTGGCCACGC	TGTGTCAGAG	AATGGTGCCT	CAGTGGAGGA	660
CCCCATGAAC	ATCTCCATCA	TCGTGACCGA	CCAGAATGAC	CACAAGCCCA	AGTTTACCCA	720
GGACACCTTC	CGAGGGAGTG	TCTTAGAGGG	AGTCCTACCA	GGTACTTCTG	TGATGCAGGT	780
GACAGCCACG	GATGAGGATG	ATGCCATCTA	CACCTACAAT	GGGGTGGTTG	CTTACTCCAT	840
CCATAGCCAA	GAACCAAAGG	ACCCACACGA	CCTCATGTTC	ACCATTCAAC	GGAGCACAGG	900
CACCATCAGC	GTCATCTCCA	GTGGCCTGGA	CCGGGAAAAA	GTCCCTGAGT	ACACACTGAC	960
CATCCAGGCC	ACAGACATGG	ATGGGGACGG	TCCACCAACC	ACGGCAGTGG	CAGTAGTGGA	1020
GATCCTTGAT	GCCAAATGACA	ATGCTCCCAT	GTTTGACCCC	CAGAAGTACG	AGGCCCATGT	1080
GCCTGAGAAT	GCAGTGGGCC	ATGAGGTGCA	GAGGCTGACG	GTCAGTGATC	TGGACGCCCC	1140
CAACTCACCA	GCGTGGCGTG	CCACCTACCT	TATCATGGGC	GGTGACGACG	GGGACCATTT	1200
TACCATCACC	ACCCACCCTG	AGAGCAACCA	GGGCATCCTG	ACAACCAGGA	AGGGTTTGGA	1260
TTTTGAGGCC	AAAAACCAGC	ACACCCTGTA	CGTTGAAGTG	ACCAACGAGG	CCCCTTTTGT	1320
GCTGAAGCTC	CCAACCTCCA	CAGCCACCAT	AGTGGTCCAC	GTGGAGGATG	TGAATGAGGC	1380
ACCTGTGTTT	GTCCCACCCT	CCAAAGTCGT	TGAGGTCCAG	GAGGGCATCC	CCACTGGGGA	1440
GCCTGTGTGT	GTCTACACTG	CAGAAGACCC	TGACAAGGAG	AATCAAAAGA	TCAGTACCG	1500
CATCCTGAGA	GACCCAGCAG	GGTGGCTAGC	CATGGACCCA	GACAGTGGGC	AGGTCACAGC	1560
TGTGGGCACC	CTCGACCGTG	AGGATGAGCA	GTTTGTGAGG	AACAACATCT	ATGAAGTCAT	1620
GGTCTTGGCC	ATGGACAATG	GAAGCCCTCC	CACCACTGGC	ACGGGAACCC	TTCTGCTAAC	1680
ACTGATTGAT	GTCAATGACC	ATGGCCCAGT	CCCTGAGCCC	CGTCAGATCA	CCATCTGCAA	1740
CCAAAGCCCT	GTGCGCCAGG	TGCTGAACAT	CACGGACAAG	GACCTGTCTC	CCCACACCTC	1800
CCCTTTCCAG	GCCCAGCTCA	CAGATGACTC	AGACATCTAC	TGGACGGCAG	AGGTCAACGA	1860
GGAAGGTGAC	ACAGTGGTCT	TGTCCCTGAA	GAAGTTCCTG	AAGCAGGATA	CATATGACGT	1920
GCACCTTTCT	CTGTCTGACC	ATGGCAACAA	AGAGCAGCTG	ACGGTGATCA	GGGCCACTGT	1980
GTGCGACTGC	CATGGCCATG	TCGAAACCTG	CCCTGGACCC	TGGAAGGGAG	GTTTCATCCT	2040
CCCTGTGCTG	GGGGCTGTCC	TGGCTCTGCT	GTTCTCTCTG	CTGGTGCTGC	TTTTGTTGGT	2100
GAGAAAGAAG	CGGAAGATCA	AGGAGCCCCT	CCTACTCCCA	GAAGATGACA	CCCGTGACAA	2160
CGTCTTCTAC	TATGGCGAAG	AGGGGGGTGG	GGAAGAGGAC	CAGGACTATG	ACATCACCCA	2220
GCTCCACCGA	GGTCTGTAGG	CCAGGCCGGA	GGTGGTTCTC	CGCAATGACG	TGGCACCAAC	2280
CATCATCCCG	ACACCCATGT	ACCGTCCTCG	GCCAGCCAAC	CCAGATGAAA	TCGGCAACTT	2340
TATAATTGAG	AACCTGAAGG	CGGCTAACAC	AGACCCCAAC	GCCCCGCCCT	ACGACACCCT	2400
CTTGGTGTTC	GACTATGAGG	GCAGCGGCTC	CGACGCCGCG	TCCCTGAGCT	CCCTCACCTC	2460
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GAAGCTGGCA	GACATGTACG	GTGGCGGGGA	GGACGACTAG	GCGGCCTGCC	TGCAGGGCTG	2580

GGGACCAAAC	GTCAGGCCAC	AGAGCATCTC	CAAGGGGTCT	CAGTTCCCCC	TTCAGCTGAG	2640
GACTTCGGAG	CTTGTCAGGA	AGTGGCCGTA	GCAACTTGGC	GGAGACAGGC	TATGAGTCTG	2700
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AGCACTGAAA	ACCTCTCCAC	CTGGGCCAGG	GTTGCCTCAG	AGGCCAAGTT	TCCAGAAGCC	2820
TCTTACCTGC	CGTAAAATGC	TCAACCCTGT	GTCCCTGGGC	TGGGCCTGCT	GTGACTGACC	2880
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GCTGGGCCCCA	CTGGCCGTCC	TGCATTTCTG	GTTTCCAGAC	CCCAATGCCT	CCCATTCCGA	3060
TGGATCTCTG	CGTTTTTATA	CTGAGTGTGC	CTAGGTTGCC	CCTTATTTTT	TATTTTCCCT	3120
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SEQ ID NO:14 Seq ID NO: 14 Protein sequence:
Protein Accession #: NP_001784.2

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KGPFQRLNQ	LKSNKDRDTK	IFYSITGPGA	DSPPEGVFAV	EKETGWLLLN	KPLDREEIAK	180
YELFGHAVSE	NGASVEDPMN	ISIIIVTDQND	HKPKFTQDTF	RGSVLEGVLP	GTSMQVVTAT	240
DEDDAIYTYN	GVVAYSISHSQ	EPKDPHDLMF	TIHRSTGTIS	VISSGLDREK	VPEYTLTIQA	300
TDMDGDGSTT	TAVAVVEILD	ANDNAPMFDP	QKYEAHVPEH	AVGHEVQRLT	VTDLDPNSP	360
AWRATYLIMG	GDDGDHFTIT	THPESNQGIL	TTRKGLDFEA	KNQHTLYVEV	TNEAPFVLKL	420
PTSTATIVVH	VEDVNEAPVF	VPPSKVVEVQ	EGIPTGEPVC	VYTAEDPDKE	NQKISYRILR	480
DPAGWLAMDP	DSGQVTAVGT	LDREDEQFVR	NNIYEVMLA	MDNGSPPTTG	TGTTTTLID	540
VNDHGPVPEP	RQITICNQSP	VRQVLNITDK	DLSPHTSPFQ	AQLTDDSDIY	WTAEVNEEGD	600
TVVLSLKKFL	KQDQTYDVHLS	LSDHGNKEQL	TVIRATVCDC	HGHVETCPGP	WKGGFILPVL	660
GAVLALLFL	LVLALLVRKK	RKIKEPLLLP	EDDTRDNVYF	YGEEGGGEED	QDYDITQLHR	720
GLEARPEVVL	RNDVAPTIIP	TPMYRPRPAN	PDEIGNFIIIE	NLKAANTDPT	APPYDTLLVF	780
DYEGSGSDAA	SLSSLTSSAS	DQDQDYDYLN	EWGSRFKKLA	DMYGGGEDD		

SEQ ID NO:15 Seq ID NO: 15 DNA sequence
Nucleic Acid Accession #: XM_051860.2
Coding sequence: 261-4346

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AGCTACCACT	CCGCTTGCCC	ACGCCCGGGG	AGCTCGCGGC	GCCTGGCGGT	CAGCGACCAG	180
ACGTCCGGGG	CCGCTGCGCT	CCTGGCCCGC	GAGGCGTGAC	ACTGTCTCGG	CTACAGACCC	240
AGAGGGAGCA	CACTGCCAGG	ATGGGAGCTG	CTGGGAGGCA	GGACTTCCTC	TTCAAGGCCA	300
TGCTGACCAT	CAGCTGGCTC	ACTCTGACCT	GCTTCCCTGG	GGCCACATCC	ACAGTGGCTG	360
CTGGGTGCCC	TGACCAGAGC	CCTGAGTTGC	AACCCTGGAA	CCCTGGCCAT	GACCAAGACC	420
ACCATGTGCA	TATCGGCCAG	GGCAAGACAC	TGCTGCTCAC	CTCTTCTGCC	ACGGTCTATT	480
CCATCCACAT	CTCAGAGGGA	GGCAAGCTGG	TCATTAAAGA	CCACGACGAG	CCGATTGTTT	540
TGCGAACCAG	GCACATCCTG	ATTGACAACG	GAGGAGAGCT	GCATGCTGGG	AGTGCCCTCT	600
GCCCTTTCCA	GGGCAATTTT	ACCATCATTT	TGTATGGAAG	GGCTGATGAA	GGTATTTCAGC	660
CGGATCCTTA	CTATGGTCTG	AAGTACATTG	GGGTTGGTAA	AGGAGGCGCT	CTTGAGTTGC	720
ATGGACAGAA	AAAGCTCTCC	TGGACATTTT	TGAACAAGAC	CCTTCACCCA	GGTGGCATGG	780
CAGAAGGAGG	CTATTTTTTT	GAAAGGAGCT	GGGGCCACCG	TGGAGTTATT	GTTTCATGTCA	840
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AATTGGGAAG	CAAACACTTC	CTGCACCTTG	GATTTAGACA	CCCTTGGAGT	TTTCTAACTG	1080
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CTTTGTCCAG	TGAGTGGGTT	CAAGACGTGG	AGTGGACGGA	GTGGTTTCGAT	CATGATAAAG	1260

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GCCGGAGCTA	CCGTGTACGG	TTCCTCTGTG	GGAAGCCTGT	GAGGCCCAAA	CTCACAGTCA	1500
CCATTGACAC	CAATGTGAAC	AGCACCATTTC	TGAACTTGGA	GGATAATGTA	CAGTCATGGA	1560
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ACATCTGCAA	TTTCTTTGAC	TTCGATACCT	TTGGGGGCCA	CATCAAGTTT	GCTCTGGGAT	1860
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AGTACCCGAT	TCACTTCCAC	CTGGCCGGTG	ATGTAGACGA	AAGGGGAGGT	TATGACCCAC	1980
CCACATACAT	CAGGGACCTC	TCCATCCATC	ATACATTCTC	TCGCTGCGTC	ACAGTCCATG	2040
GCTCCAATGG	CTTGTTGATC	AAGGACGTTG	TGGGCTATAA	CTCTTTGGGC	CAGTGGTTCT	2100
TCACGGAAGA	TGGGCCGGAG	GAACGCAACA	CTTTTGACCA	CTGCTTGGC	CTCCTTGTC	2160
AGTCTGGAAC	CCTCCTCCCC	TCGGACCGTG	ACAGCAAGAT	GTGCAAGATG	ATCACAGAGG	2220
ACTCCTACCC	GGGGTACATC	CCCAAGCCCA	GGCAAGACTG	CAATGCTGTG	TCCACCTTCT	2280
GGATGGCCAA	TCCCAACAAC	AACCTCATCA	ACTGTGCCGC	TGCAGGATCT	GAGGAAACTG	2340
GATTTTGGTT	TATTTTTTAC	CACGTACCAA	CGGGCCCCCTC	CGTGGGAATG	TACTCCCCAG	2400
GTTATTGAGA	GCACATTCCA	CTGGGAAAAT	TCTATAACAA	CCGAGCACAT	TCCAACCTACC	2460
GGGCTGGCAT	GATCATAGAC	AACGGAGTCA	AAACCACCGA	GGCCTCTGCC	AAGGACAAGC	2520
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AGCCCCGGGA	GCCGGCCATC	ATCAGACACT	TCATTGCCTA	CAAGAACCAG	GACCACGGGG	2640
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CAATTAGAGG	AATTCAGTTA	TATGATGGCC	CCATCAACAT	CCAAAACCTGC	ACTTTCCGAA	2940
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GGGCCATTTG	CAGTGGGTGC	TATGCACAGA	TGTACATTCA	AGCCTACAAG	ACCAGTAACC	3300
TGCGAATGAA	GATCATCAAG	AATGACTTCC	CAGCCACCC	TCTTTACCTG	GAGGGGGCGC	3360
TCACCAGGAG	CACCCATTAC	CAGCAATACC	AACCGGTTGT	CACCTGTCAG	AAGGGCTACA	3420
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ACTCAGGGCT	GTTGTTCCCTG	AAGCTGAAAG	CTCAGAACGA	GAGAGAGAAG	TTTGCTTTCT	3720
GCTCCATGAA	AGGCTGTGAG	AGGATAAAGA	TTAAAGCTCT	GATTCCAAAG	AACGCAGGCG	3780
TCAGTGACTG	CACAGCCACA	GCTTACCCCA	AGTTCACCGA	GAGGGCTGTC	GTAGACGTGC	3840
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GGGGTCTCAA	GTTGAAAGAG	CAAATGGCAT	TCGTTGGCTT	CAAAGGCAGC	TTCCGGCCCA	4260
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GGCCAATGCT	GGAAACATTTC	ACTTTCCTGC	AGCCTCTTGG	GTGCTTCTCT	CCTATCTGTG	4620
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TCCACTTTGG	CAGGAGCCCT	GACCCAGCTA	GGAGGTAGTC	TGGAGGGCTG	GTCATTCAACA	4740
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CTTAAGGAAA	TCTTTACTCC	TGTAAGCAAG	AGCCAACCTC	ACAGGATTAG	GAGCTGGGGT	4860
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GCTCAGGAAG	GCTTCTTGCT	TACAGGAATG	AAGGCTGGGG	GCATTTTGCT	GGGGGGAGAT	5280
GAGGCAGCCT	CTGGAATGGC	TCAGGGATTG	AGCCCTCCCT	GCCGCTGCCT	GCTGAAGCTG	5340
GTGACTACGG	GGTCGCCCTT	TGCTCACGTC	TCTCTGGCCC	ACTCATGATG	GAGAAGTGTG	5400
GTCAGAGGGG	AGCAATGGGC	TTTGCTGCTT	ATGAGCACAG	AGGAATTCAG	TCCCCAGGCA	5460
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CGTACTCCCT	CGGCCTGGGA	TTTCAGAGCT	GGAAATATAG	AAAATATCTA	GCCCCAAGCC	5640
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Protein Accession #: XP_051860.2

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TIILYGRADE	GIQPDPIYGL	KYIGVGKGGG	LELHGQKKLS	WTFNLKTLHP	GGMAEGGYFF	180
ERSWGHARGVI	VHVIDPKSGT	VIHSDRFDTY	RSKKESERLV	QYLNAVDPGR	ILSVAVNDEG	240
SRNLDDMARK	AMTKLGSKHF	LHLGFRHPWS	FLTVKGNPSS	SVEDHIEYHG	HRGSAAARVF	300
KLFQTEHGEY	FNVSLSSEWV	QDVEWTEWFD	HDKVSQTKGG	EKISDLWKAH	PGKICNRPID	360
IQATTMDGVN	LSTEVVYKKG	QDYRFACYDR	GRACRSYRVR	FLCGKPVPRK	LTVTIDTNVN	420
STILNLEDNV	QSWKPGDTLV	IASTDYSMYQ	AEEFQVLPGR	SCAPNQVKVA	GKPMYLIHIG	480
BIDGVDMRAE	VGLLSRNIIIV	MGEMEDKCYP	YRNHICNFFD	FDTFGGHIKF	ALGFKAAHLE	540
GTELKHMGGQ	LVGQYPIHFH	LAGDVDERGG	YDPPTYIRDL	SIHHTFSRCV	TVHGSNGLLI	600
KDVVGYNLSG	HCFFTEDGPE	ERNTFDHCLG	LLVKSGTLLP	SDRDSKMCKM	ITEDSYPGYI	660
PKPRQDCNAV	STFWMANPNN	NLINCAAAGS	EETGFWFIFH	HVPTGPSVGM	YSPGYSEHIP	720
LGFYNNRAH	SNYRAGMIID	NGVKTTEASA	NDKRPFLSII	SARYSPHQDA	DPLKPREPAI	780
IRHFIAYKNQ	DHGWLRGGD	VWLDSCRFFD	NGIGLTLASG	GTFFPYDDGSK	QEIKNSLFVVG	840
ESGNVGTEMM	DNRIWPGGGL	DHSGRTLPIG	QNFPIRGIQL	YDGPINIQNC	TFRKFVALEG	900
RHTSALAFRL	NNAWQSCPHN	NVTGIAFEDV	PITSRVFFGE	PGPWFNQLDM	DGDKTSVFHD	960
VDGSVSEYPG	SYLTKNNDNL	VRHPDCINVP	DWRGAICSGC	YAQMYIQAYK	TSNLRMKI IK	1020
NDFPSHPLYL	EGALTRSTHY	QQYQPVVTLQ	KGYTIHWDQT	APAEIAIWL I	NFNKGDWIRV	1080

GLCYPRGTTT	SILSDVHNRL	LKQTSKTGVF	VRTLQMDKVE	QSYPGRSHYY	WDEDSGLLFL	1140
KLKAQNEREK	FAFCSMKGCE	RIKIKALIPK	NAGVSDCTAT	AYPKFTERAV	VDVPMPKKLF	1200
GSQKTKDHF	LEVKMESKQ	HFFHLWNDFA	YIEVDGKKYP	SSEDGIQVVV	IDGNQGRVVS	1260
HTSFRNSILQ	GIPWQLFNYV	ATIPDNSIVL	MASKGRYVSR	GPWTRVLEKL	GADRGLKLKE	1320
QMAFVGFKGS	FRPIWVTLDT	EDHKAKIFQV	VPIPVVKKKK	L		

SEQ ID NO:17 ~~Seq ID NO: 17~~ DNA sequence
Nucleic Acid Accession #: NM_015515.1
Coding sequence: 61-1329

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GCCCCATCT	CCCTGTCCTT	CACCACGCGG	AGCTGCCCAC	CCCCTGGAGG	GTCTTGGGGT	240
TCTGGAAGAA	GCAGCCCCCT	ACTAGGCGGA	AATGGGAAGG	CCACCATGCA	GAATCTCAAC	300
GACCGCCTGG	CCTCCTACCT	GGAGAAGGTT	CGCGCCCTGG	AGGAGGCCAA	CATGAAGCTG	360
GAAAGCCGCA	TCCTGAAATG	GCACCAGCAG	AGAGATCCTG	GCAGTAAGAA	AGATTATTCC	420
CAGTATGAGG	AAAACATCAC	ACACCTGCAG	GAGCAGATAG	TGGATGGTAA	GATGACCAAT	480
GCTCAGATTA	TTCTTCTCAT	TGACAATGCC	AGGATGGCAG	TGGATGACTT	CAACCTCAAG	540
TATGAAAATG	AACACTCCTT	TAAGAAAGAC	TTGGAAATTG	AAGTCGAGGG	CCTCCGAAGG	600
ACCTTAGACA	ACCTGACCAT	TGTCACAACA	GACCTAGAAC	AGGAGGTGGA	AGGAATGAGG	660
AAAGAGCTCA	TTCTCATGAA	GGAGCACCAT	GAGCAGGAAA	TGGAGGAGCA	TCATGTGCCA	720
AGTGACTTCA	ATGTCAATGT	GAAGGTGGAT	ACAGGTCCCA	GGGAAGATCT	GATTAAGGTC	780
CTGGAGGATA	TGAGACAAGA	ATATGAGCTT	ATAATAAAGA	AGAAAGCATCG	AGACTTGGAC	840
ACTTGGTATA	AAGAACAGTC	TGCAGCCATG	TCCCAGGAGG	CAGCCAGTCC	AGCCACTGTG	900
CAGAGCAGAC	AAGGTGACAT	CCACGAACTG	AAGCGCACAT	TCCAGGCCCT	GGAGATTGAC	960
CTGCAGGCAC	AGTACAGCAC	GAAATCTGCT	TTGGAAAACA	TGTTATCCGA	GACCCAGTCT	1020
CGGTACTCCT	GCAAGCTCCA	GGACATGCAA	GAGATCATCT	CCCACTATGA	GGAGGAACTG	1080
ACGCAGCTAC	GCCACGAACT	GGAGCGGCAG	AACAATGAAT	ACCAAGTGCT	GCTGGGCATC	1140
AAAACCCACC	TGGAGAAGGA	AATCACCACG	TACCGACGGC	TCCTGGAGGG	AGAGAGTGAA	1200
GGGACACGGG	AAGAATCAAA	GTCGAGCATG	AAAGTGCTTG	CAACTCCAAA	GATCAAGGCC	1260
ATAACCCAGG	AGACCATCAA	CGGAAGATTA	GTTCTTTGTC	AAGTGAATGA	AATCCAAAAG	1320
CACGCATGAG	ACCAATGAA	GTTTCCGCCT	GTTGTAAAGT	CTATTTTCCC	CCAAGGAAAG	1380
TCCTTGACAT	GACACCATG	AGTGAGTTCT	AAAAGATACC	CTTGGAATTA	TCAGACTCAG	1440
AAACTTTTAT	TTTTTTTTTT	CTGTAACAGT	CTCACCAGAC	TTCTCATAAT	GCTCTTAATA	1500
TATTGCACTT	TTCTAATCAA	AGTGCAGGTT	TATGAGGGTA	AAGCTCTACT	TTCTACTGCT	1560
AGCCTTCAGA	TTCTCATCAT	TTTGCATCTA	TTTTGTAGCC	AATAAAACTC	CGCACTAGC	

SEQ ID NO:18 ~~Seq ID NO: 18~~ Protein sequence:
Protein Accession #: NP_056330.1

1	11	21	31	41	51	
MNSGHSFSQT	PSASFHGAGG	GWGRPRSFP	APT VHGGAGG	ARISLSFTTR	SCPPPGGSWG	60
SGRSSPLLGG	NGKATMQNLN	DRLASYLEKV	RALEEANMKL	ESRILKWHQQ	RDPGSKKDYS	120
QYEENITHLQ	EQIVDGKMTN	AQIILLIDNA	RMAVDDFNLK	YENEHSFKKD	LEIEVEGLRR	180
TLDNLTIVTT	DLEQEVEGMR	KELILMKEHH	EQEMEEHVP	SDFNVNVKVD	TGPREDLIKV	240
LEDMRQEYEL	IIKKKHRDL	TWYKEQSAAM	SQEAASPATV	QSRQGDIEL	KRTFQALEID	300
LQAQYSTKSA	LENMLSETQS	RYCKLQDMQ	EIISHYEEEL	TQLRHELERQ	NNEYQVLLGI	360
KTHLEKEITT	YRRLLEGES	GTREESKSSM	KVSATPKIKA	ITQETINGRL	VLCQVNEIQ	420

HA

SEQ ID NO:19 ~~Seq ID NO: 19~~ DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
TTTTTTTTTT	TTAAAAAAAA	GAGGCTTGGT	AAGTTTTTGA	TACTTAGTTG	ACTTTTAGCA	60
TTATCCAGCA	TTTGTATTAT	GAACCACTGA	GTACTGTAAT	TTTTCTTTCC	CTTTCAGAAA	120
GACTCAAAGG	GAACATATAA	ATGTTTCCTA	TTTTTNNNNN	NNNNNNNNNN	NNNNNNNNNN	180
NNNNACCCAT	CGTGCGATGA	TCNNNNNNNN	NNNNNNNNNN	NNNNNTTGGG	ATCCAGTTTC	240
AAATAAGGTA	TGGGAAAAAC	AGATGTTTTT	ATTATCGCCA	CTTAATCCTT	ACTTCCGATT	300
ATAATTATAC	ATGTTTGGCT	GTAATAACTA	TACTAAAGCA	TGCTTGTGAA	AGTAGACTTC	360
TACAAGGACA	GAAAACCCAC	AACAACAAAG	ATCGATCAGC	AAAGACAAGG	CATATTCATT	420
CATTAATTTA	CTTCTCTTAG	ACCCGGGACA	TGTGGGACAA	ATACTTTTGT	CCTCATGGAT	480
GGCTTGATAA	TTTATTTATA	TGTTCTAGAG	TCTGAGGATT	TTCTTTCAGT	GGCAGACAAC	540
AAAGGATGTT	ACAATTTACT	TCAAAATAAT	ACAATCATGG	TTTAATTTAC	AGTGTAATC	600
CATAACTATT	TTATAGAGAT	GGATTATCAT	ACATGGGATT	ATAAAAATAA	CTTACCCATA	660
TGCTTGCAAA	ATAGACTTTT	CCTATTGGGA	GGAACATCTT	TTAACCTAAA	ACGGATTTAT	720
TTCAGATGAA	TTAGACAGTA	CATTTTTTCAG	GAGAACCAGC	CTTACTGGAT	GATCTTTTGT	780
CAGGTTTGGA	GGCCTCTTCT	TTGTCTTTGC	AACCATAACC	CCTTTTCAGC	TGAAGACCAC	840
TGGCCTTCAA	CCCAAGCCAG	GAGTTTGGCT	CAAATGA			

SEQ ID NO:20 ~~Seq ID NO: 20~~ DNA sequence

Nucleic Acid Accession #: D32051.1

Coding sequence: 72-1373

1	11	21	31	41	51	
GAATTCGAAC	CAGGTGGCCA	CCCGGTGTCG	GTTTCATTTT	CCTTTGGAAT	TTCTGCTTTA	60
CAGACAGAAC	AATGGCAGCC	CGAGTACTTA	TAATTGGCAG	TGGAGGAAGG	GAACATACGC	120
TGGCCTGGAA	ACTTGCACAG	TCTCATCATG	TCAAACAAGT	GTTGGTTGCC	CCAGGAAACG	180
CAGGCACTGC	CTGCTCTGAA	AAGATTTCAA	ATACCGCCAT	CTCAATCAGT	GACCACACTG	240
CCCTTGCTCA	ATTCTGCAAA	GAGAAGAAAA	TTGAATTTGT	AGTTGTTGGA	CCAGAAGCAC	300
CTCTGGCTGC	TGGGATTGTT	GGGAACCTGA	GGTCTGCAGG	AGTGCAATGC	TTTGGCCCAA	360
CAGCAGAAGC	GGCTCAGTTA	GAGTCCAGCA	AAAGGTTTGC	CAAAGAGTTT	ATGGACAGAC	420
ATGGAATCCC	AACCGCACAA	TGGAAGGCTT	TCACCAAACC	TGAAGAAGCC	TGCAGCTTCA	480
TTTTGAGTGC	AGACTTCCCT	GCTTTGGTTG	TGAAGGCCAG	TGGTCTTGCA	GCTGGAAAAG	540
GGGTGATTGT	TGCAAGAGC	AAAGAAGAGC	CCTGCAAAGC	TGTACAAGAG	ATCATGCAGG	600
AGAAAGCCTT	TGGGGCAGCT	GGAGAAACAA	TTGTCATTGA	AGAACTTCTT	GACGGAGAAG	660
AGGTGTCGTG	TCTGTGTTTC	ACTGATGGCA	AGACTGTGGC	CCCCATGCCC	CCAGCACAGG	720
ACCATAAGCG	ATTACTGGAG	GGAGATGGTG	GCCCTAACAC	AGGGGGAATG	GGAGCCTATT	780
GTCCAGCCCC	TCAGGTTTCT	AATGATCTAT	TACTAAAAAT	TAAAGATACT	GTTCTTCAGA	840
GGACAGTGGA	TGGCATGCAG	CAAGAGGGTA	CTCCATATAC	AGGTATTCTC	TATGCTGGAA	900
TAATGCTGAC	CAAGAATGGC	CCAAAAGTTC	TAGAGTTTAA	TTGCCGTTTT	GGTGATCCAG	960
AGTGCCAAGT	AATCCTCCCA	CTTCTTAAAA	GTGATCTTTA	TGAAGTGATT	CAGTCCACCT	1020
TAGATGGACT	GCTCTGCACA	TCTCTGCCTG	TTTGGCTAGA	AAACCACACC	GCCCTAACTG	1080
TTGTCAATGG	AAGTAAAGGT	TATCCTGGAG	ACTACACCAA	GGGTGTAGAG	ATAACAGGGT	1140
TTCTTGAGGC	TCAAGCTCTA	GGACTGGAGG	TGTCCCATGC	AGGCACTGCC	CTCAAAAATG	1200
GCAAAGTAGT	AACTCATGGG	GGTAGAGTTC	TTGCAGTCAC	AGCCATCCGG	GAAAATCTCA	1260
TATCAGCCCT	TGAGGAAGCC	AAGAAAGGAC	TAGCTGCTAT	AAAGTTTGAG	GGAGCAATTT	1320
ATAGGAAAGA	CATCGGCTTT	CGTGCCATAG	CTTTCCTCCA	GCAGCCCAGG	TAAAACCTCA	1380
AGCAAGTTAG	CTGTAGTGCC	ATTTCAAGAA	CTGGCCTAAA	TGGCTATGTA	GAACATTCCA	1440
TTAACCCTAT	AAGTCATTCA	GTATTCTTTT	CTCTCTGTGG	GAGTGATACA	GTCTTGGTTT	1500
GTATTTTGT	TGAATCAAAA	CTGGTTATAG	CAATACTCAA	ATGGAAAAAA	CTTCATGATA	1560
GCGTAAGTTT	GGAAAGTTTA	GCAAAATCAC	AGTGGTACTG	ATTTTTATTT	GTTTTCTATT	1620
TTTTTTTATTT	TATATTTTAA	ATTTTTTTAA	CAGGGTCTTC	CTCTCTCGCC	CAAGTTCTCA	1680
TGCCTCAGCC	TCCCAAATAG	CTGGGACTAC	AGGCACAGGC	CACCACACCT	GGCTAATTTT	1740
TTTGTATTTT	TTGTGGAGAT	GGGGTTCACC	ATGTTGCCAA	GGCCAGTCTG	AAAGCCTGGG	1800
CTCAAGTGAT	CCTCCTGCTT	TGGCCTCCCA	AAATGCTGGG	ACTATAGGCA	TGAGGCGCTG	1860
CACTTGGCCT	GATACTGATT	TTTATTCCTT	GCGTTATCAC	ATAGTGTTGT	ATTTGAAACA	1920
TAGTTCATGG	TTTTATCAAA	GAAGTGAAGA	TGAGAATACT	GGTCATCTAA	CTTTGTAATT	1980

TGATTTGATT	ATACTGTAAA	GTTTGACAGT	CCCATTTTAA	CCTGCGTTTG	TATCTATTAC	2040
TAAAATGTAT	TTTTTGACCT	CTTACTGATT	CATGGTTGGT	ATGTACAAAC	TGTTGACTTG	2100
TAAAATCAAT	AAAGTCTTAG	TTGG				

SEQ ID NO:21 Seq ID NO: 21 Protein sequence:
Protein Accession #: BAA06809.1

1	11	21	31	41	51	
MAARVLIIGS	GGREHTLAWK	LAQSHHVQV	LVAPGNAGTA	CSEKISNTAI	SISDHTALAQ	60
FCKEKKIEFV	VVGPEAPLAA	GIVGNLRSAG	VQCFGPTAEA	AQLESSKRFA	KEFMDRHHGIP	120
TAQWKAFKTP	EEACSFILSA	DFPALVVKAS	GLAAGKGVIV	AKSKEEACKA	VQEIMQEKAF	180
GAAGETIVIE	ELLDGEEVSC	LCFTDGKTVA	PMPPAQDHKR	LLEGDGGPNT	GGMGAYCPAP	240
QVSNLLLLKI	KDTVLQRTVD	GMQQEGTPYT	GILYAGIMLT	KNGPKVLEFN	CRFGDPECQV	300
ILPLLKSDLY	EVIQSTLDGL	LCTSLPVWLE	NHTALTVMMA	SKGYPGDYTK	GVEITGFPEA	360
QALGLEVSHA	GTALKNGKV	THGGRVLAVT	AIRENLISAL	EEAKKGLAAI	KFEGAIYRKD	420
IGFRAIAFLQ	QPR					

SEQ ID NO:22 Seq ID NO: 22 DNA sequence
Nucleic Acid Accession #: EOS cloned
Coding sequence: 1-2424

1	11	21	31	41	51	
ATGCCCCCTT	TCCTGTTGCT	GGAGGCCGTC	TGTGTTTTC	TGTTTTCCAG	AGTGCCCCCA	60
TCTCTCCCTC	TCCAGGAAGT	CCATGTAAGC	AAAGAAACCA	TCGGGAAGAT	TTCAGCTGCC	120
AGCAAAATGA	TGTGGTGCTC	GGCTGCAGTG	GACATCATGT	TTCTGTTAGA	TGGGTCTAAC	180
AGCGTCGGGA	AAGGGAGCTT	TGAAAGGTCC	AAGCACTTTG	CCATCACAGT	CTGTGACGGT	240
CTGGACATCA	GCCCCGAGAG	GGTCAGAGTG	GGAGCATTC	AGTTCAGTTC	CACTCCTCAT	300
CTGGAATTCC	CCTTGGATT	ATTTTCAACC	CAACAGGAAG	TGAAGGCAAG	AATCAAGAGG	360
ATGGTTTTCA	AAGGAGGGCG	CACGGAGACG	GAACCTTGCTC	TGAAATACCT	TCTGCACAGA	420
GGGTGTCCTG	GAGGCAGAAA	TGCTTCTGTG	CCCCAGATCC	TCATCATCGT	CACTGATGGG	480
AAGTCCCAGG	GGGATGTGGC	ACTGCCATCC	AAGCAGCTGA	AGGAAAGGGG	TGTCAGTGTG	540
TTTGCTGTGG	GGGTCAGGTT	TCCCAGGTGG	GAGGAGCTGC	ATGCACTGGC	CAGCGAGCCT	600
AGAGGGCAGC	ACGTGCTGTT	GGCTGAGCAG	TGGGAGGATG	CCACCAACGG	CCTCTTCAGC	660
ACCTCAGCA	GCTCGGCCAT	CTGCTCCAGC	GCCACGCCAG	ACTGCAGGGT	CGAGGCTCAC	720
CCCTGTGAGC	ACAGGACGCT	GGAGATGGTC	CGGGAGTTCC	CTGGCAATGC	CCCATGCTGG	780
AGAGGATCGC	GGCGGACCCT	TGCGGTGCTG	GCTGCACACT	GTCCCTTCTA	CAGCTGGAAG	840
AGAGTGTTCC	TAACCCACCC	TGCCACCTGC	TACAGGACCA	CCTGCCCAGG	CCCCTGTGAC	900
TCGCAGCCCT	GCCAGAATGG	AGGCACATGT	GTTCCAGAAG	GACTGGACGG	CTACCAAGTGC	960
CTCTGCCCCG	TGGCCTTTGG	AGGGGAGGCT	AACTGTGCCC	TGAAGCTGAG	CCTGGAATGC	1020
AGGGTCGACC	TCCTCTTCCT	GCTGGACAGC	TCTGCGGGCA	CCACTCTGGA	CGGCTTCCTG	1080
CGGGCCAAAG	TCTTCGTGAA	GCGGTTTGTG	CGGGCCGTGC	TGAGCGAGGA	CTCTCGGGCC	1140
CGAGTGGGTG	TGGCCACATA	CAGCAGGGAG	CTGCTGGTGG	CGGTGCCCTGT	GGGGGAGTAC	1200
CAGGATGTGC	CTGACCTGGT	CTGGAGCCTC	GATGGCATTC	CCTTCCGTGG	TGGCCCCACC	1260
CTGACGGGCA	GTGCCCTTGC	GCAGGCGGCA	GAGCGTGGCT	TCGGGAGCGC	CACCAGGACA	1320
GGCCAGGACC	GGCCACGCTAG	AGTGGTGGTT	TTGCTCACTG	AGTCACACTC	CGAGGATGAG	1380
GTTGCGGGCC	CAGCGCGTCA	CGCAAGGGCG	CGAGAGCTGC	TCCTGCTGGG	TGTAGGCAGT	1440
GAGGCCGTGC	GGGCAGAGCT	GGAGGAGATC	ACAGGCAGCC	CAAAGCATGT	GATGGTCTAC	1500
TCGGATCCTC	AGGATCTGTT	CAACCAAATC	CCTGAGCTGC	AGGGGAAGCT	GTGCAGCCGG	1560
CAGCGGCCAG	GGTGCCGGAC	ACAAGCCCTG	GACCTCGTCT	TCATGTTGGA	CACCTCTGCC	1620
TCAGTAGGGC	CCGAGAATTT	TGCTCAGATG	CAGAGCTTTG	TGAGAAGCTG	TGCCCTCCAG	1680
TTTGAGGTGA	ACCCTGACGT	GACACAGGTC	GGCCTGGTGG	TGTATGGCAG	CCAGGTGCAG	1740
ACTGCCTTCG	GGCTGGACAC	CAAACCCACC	CGGGCTGCGA	TGCTGCGGGC	CATTAGCCAG	1800
GCCCCCTACC	TAGGTGGGGT	GGGCTCAGCC	GGCACCGCCC	TGCTGCACAT	CTATGACAAA	1860
GTGATGACCG	TCCAGAGGGG	TGCCCCGGCT	TGCTTCCCCA	AAGCTGTGGT	GGTGCTCACA	1920
GGCGGGAGAG	GCGCAGAGGA	TGCAGCCGTT	CCTGCCCAGA	AGCTGAGGAA	CAATGGCATC	1980
TCTGTCTTGG	TCGTGGGCGT	GGGGCCTGTC	CTAAGTGAGG	GTCTGCGGAG	GCTTGCAAGT	2040
CCCCGGGATT	CCCTGATCCA	CGTGGCAGCT	TACGCCGACC	TGCGGTACCA	CCAGGACGTG	2100

CTCATTGAGT	GGCTGTGTGG	AGAAGCCAAG	CAGCCAGTCA	ACCTCTGCAA	ACCCAGCCCCG	2160
TGCATGAATG	AGGGCAGCTG	CGTCCTGCAG	AATGGGAGCT	ACCGCTGCAA	GTGTCTGGGAT	2220
GGCTGGGAGG	GGCCCCACTG	CGAGAACCGT	GAGTGGAGCT	CTTGCTCTGT	ATGTGTGAGC	2280
CAGGGATGGA	TTCTTGAGAC	GGCCCTGAGG	CACATGGCTC	CCGTGCAGGA	GGGCAGCAGC	2340
CGTACCCCTC	CCAGCAACTA	CAGAGAAGGC	CTGGGCACTG	AAATGGTGCC	TACCTTCTGG	2400
AATGTCTGTG	CCCCAGGTCC	TTAG				

SEQ ID NO:23 ~~Seq ID NO: 23~~ Protein sequence:
Protein Accession #: EOS cloned

1	11	21	31	41	51	
MPPFLLLEAV	CVFLFSRVPP	SLPLQEVHVS	KETIGKISAA	SKMMWCSAAV	DIMFLLDGSN	60
SVGKGSFERS	KHFAITVCDG	LDISPERVRV	GAFQFSSTPH	LEFPLDSFST	QEVKARIKR	120
MVFKGGRTET	ELALKYLLHR	GLPGGRNASV	PQILIIIVTDG	KSQGDVALPS	KQLKERGVTV	180
FAVGVRFPWR	EELHALASEP	RGQHVLLAEQ	VEDATNGLFS	TLSSSAICSS	ATPDCRVEAH	240
PCEHRTLEMV	REFAGNAPCW	RGSRRTLAVL	AAHCPFYSWK	RVFLTHPATC	YRTTCPGPCD	300
SQPCQNGGTC	VPEGLDGYQC	LCPLAFGGEA	NCALKLSLEC	RVDLLFL LDS	SAGTTLDGFL	360
RAKVFKRFV	RAVLSEDSRA	RVGVATYSRE	LLVAVPVGEY	QDVPDLVWSL	DGIPFRGGPT	420
LTGSALRQAA	ERGFGSATRT	GQDRPRRVVV	LLTESHSEDE	VAGPARHARA	RELLLLGVGS	480
EAVRAELEEI	TGSPKHVMVY	SDPQDLFNQI	PELQGKLC SR	QRP GCRTQAL	DLVFM LDTSA	540
SVGPENFAQM	QSFVRSCALQ	FEVNP DVTQV	GLVVYGSQVQ	TAFGLDTKPT	RAAMLRAISQ	600
APYLGGVGSA	GTALLHIYDK	VMTVQRGARP	GVPKAVVVL T	GGRGAEDAAV	PAQKL RNNGI	660
SVLVVGVGPV	LSEGLRRLAG	PRDSL I HVAA	YADLRYHQDV	LIEWLCGEAK	QPVNLCKPSP	720
CMNEGSCVLQ	NGSYRCKCRD	GWEGPHCENR	EWSSCSVCVS	QGWILETPLR	HMAPVQEGSS	780
RTPPSNYREG	LGTEMVPTFW	NVCAPGP				

SEQ ID NO:24 ~~Seq ID NO: 24~~ DNA sequence
Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
AGGTCGGCTG	GTTATCGGGA	GTTGGAGGGC	TGAGGTCGGG	AGGGTG GTGT	GTACAGAGCT	60
CTAGGACTCA	CGCACCAGGC	CAGTCGCGGG	TTTTGGGCCG	AGGCCTGGGT	TACAAGCAGC	120
AAGTGCGCGG	TTGGGGCCAC	TGCGAGGCCG	TTT TAGAAAA	CTGTTTAAAA	CAAAGAGCAA	180
TTGATGGATA	AATCAGGAAT	AGATTCTCTT	GACCATGTGA	CATCTGATGC	TGTGGA ACTT	240
GCAAATCGAA	GTGATAACTC	TTCTGATAGC	AGCTTATTTA	AAACTCAGTG	TATCCCTTAC	300
TCACCTAAAG	GGGAGAAAAG	AAACCCCAT T	CGAAAATT TG	TTCGTACACC	TGAAAGTGT T	360
CACGCAAGTA	TTCATCAAGT	GACTCATCTT	TTGAACCA GT	ACCATTGACT	ATAAAAGCTA	420
TTTTTGAAAG	ATTCAAGAAC	AGGAAAAAGA	GATATAAAAA	AAAGAAAAAG	AGGAGGTACC	480
AGCCAACAGG	AAGACCACGG	GGAAGACCAG	AAGGAAGGAG	AAATCCTATA	TACTACTATA	540
TAGATAAGAA	GAAACAATTT	AGAAGCAGAG	GATCTGGCTT	CCCATTTTTA	GAATCAGAGA	600
ATGAAAAAAA	CGCACCTTGG	AGAAAAATTT	TAACGTTTGA	GCAAGCTGTT	GCAAGAGGAT	660
TTTTTA ACTA	TATTGAAAAA	CTGAAGTATG	AACACCACCT	GAAAGAATCA	TTGAAGCAAA	720
TGAATGTTGG	TGAAGATTTA	GAAAAATGAAG	ATTTTGACAG	TCGTAGATAC	AAATTTTTTG	780
ATGATGATGG	ATCCATTTCT	CCTATTGAGG	AGTCAACGCT	TTTATCTTGA	GGACATGGTG	840
TCTGGAGTTA	AAGGTATTGG	CATACTCCAC	ACATCTGTAC	CATTCTTGAG	TGATCGCTTA	900
GGAATGAATG	TGATTTGGAC	TCATTCATGT	ATGAGAGTAA	GCAATGCTTT	TTTTTCCAGG	960
GTGTCAAATT	GAGAACCAGG	TAGATCCCCA	CCACCTACAG	TAAAAAGGAC	CCTAAAGTAA	1020
ATTGGTTGAA	GAAATTAGAT	CCCAAAGATT	CTTGGTGAA T	TTTGAAGTCT	TCATCAGTAT	1080
ATCCATATTA	AAACGAGATG	ACAGAAGCCA	AAGTAATTAT	GGGCTGACAG	GACAACTGGA	1140
TCAGTTTCAT	TAAAAAGGGC	AAACTTGAAG	ATAAATCTTT	TGACTCCAGC	TCTTTAGAGG	1200
ATCTAAAGTG	ACCTTGATGG	ACAGTGGAAG	AAATCACAAC	ATGGAATTCC	TCGAATAACA	1260
ATTTATTGAC	TTTAAATAAT	TTTGTCTAAT	GCTACATATA	CACAATTAAA	AAACCTTTAC	1320
ACTATTTCTA	GAAAGTCAGC	ATGTATTTTT	GGCTCGAAGT	TTCTCTAGTG	TTTTCTGTGG	1380
AAGGAATAAA	AATTTGAGGT	TTCAATACAA	AAACAAAACA	AACAACACGA	AACACGAAAA	1440
ACAATCTGTT	GTGCGGCGCC	CCTGGGCCCC	TTGAGAGAAA	ACTTTTTAGA	ACCCCTTTTG	1500
CGTTGTGGCG	GCCCGGGGGC	CCCACAGTTG	GGTTTAGGTG	GGCACCCTTG	TGTCTACAAG	1560
TGGTGTCTCC	CCAAGAGAGA	GAACACCTCC	GGGTC AAGC	GGACAACAAG	AGTGCGTCGT	1620

GAGGACTCTT CACCCAAAGT ATATAAAACC CGCCCCGCGG GGGAACCACC GGCCGCTTTT 1680
 CTGTAGACAC AACCCCCACA GTGGGAACCT CTGAGGGCGC ACACACAGGG CGAGCCTTAT 1740
 CAACAAGGGG TGCCCAACAG AAACCCCGAG TTAATAATCG

SEQ ID NO:25 ~~Seq ID NO: 25~~ DNA sequence
 Nucleic Acid Accession #: BC001972.1
 Coding sequence: 183-1019

1	11	21	31	41	51	
GGTCGGCTGG	TTATCGGGAG	TTGGAGGGCT	GAGGTCGGGA	GGGTGGTGTG	TACAGAGCTC	60
TAGGACTCAC	GCACCAGGCC	AGTCGCGGGT	TTTGGGCCGA	GGCCTGGGTT	ACAAGCAGCA	120
AGTGC GCGGT	TGGGGCCACT	GCGAGGCCGT	TTTAGAAAAC	TGTTTAAAAC	AAAGAGCAAT	180
TGATGGATAA	ATCAGGAATA	GATTCTCTTG	ACCATGTGAC	ATCTGATGCT	GTGGAAGTTG	240
CAAAATCGAAG	TGATAACTCT	TCTGATAGCA	GCTTATTTAA	AACTCAGTGT	ATCCCTTACT	300
CACCTAAAGG	GGAGAAAAGA	AACCCCATTC	GAAAATTTGT	TCGTACACCT	GAAAGTGTTT	360
ACGCAAGTGA	TTCATCAAGT	GACTCATCTT	TTGAACCAAT	ACCATTGACT	ATAAAAGCTA	420
TTTTTGAAG	ATTCAAGAAC	AGGAAAAAGA	GATATAAAAA	AAAGAAAAAG	AGGAGGTACC	480
AGCCAACAGG	AAGACCACGG	GGAAGACCAG	AAGGAAGGAG	AAATCCTATA	TACTACTATA	540
TAGATAAGAA	GAAACAATTT	AGAAGCAGAG	GATCTGGCTT	CCCATTTTTA	GAATCAGAGA	600
ATGAAAAAAA	CGCACCTTGG	AGAAAAATTT	TAACGTTTGA	GCAAGCTGTT	GCAAGAGGAT	660
TTTTTAACTA	TATTGAAAAA	CTGAAGTATG	AACACCACCT	GAAAGAATCA	TTGAAGCAAA	720
TGAATGTTGG	TGAAGATTTA	GAAAATGAAG	ATTTTGACAG	TCGTAGATAC	AAATTTTTGG	780
ATGATGATGG	ATCCATTTCT	CCTATTGAGG	AGTCAACAGC	AGAGGATGAG	GATGCAACAC	840
ATCTTGAAGA	TAACGAATGT	GATATCAAAT	TGGCAGGGGA	TAGTTTCATA	GTAAGTTCTG	900
AATTCCCTGT	AAGACTGAGT	GTATACTTAG	AAGAAGAGGA	TATTACTGAA	GAAGCTGCTT	960
TGTCTAAAAA	GAGAGCTACA	AAAGCCAAAA	ATACTGGACA	GAGAGGCCCTG	AAAATGTGAC	1020
AGGATCATGA	ATGTCAAAGG	CTTTTATCTT	GAGAACATGG	TGTCTGGAGT	TAAAGGACTA	1080
TTGTTAGATC	TGTGGGAAGG	AATTACAAGA	CAGTTGCTAA	AAGTTTGAAA	AAGACGGTTG	1140
CTAAACGTTA	TGAAAAACCA	GATAATCTAC	TTTTTTTACCT	TAGGTATTGG	CATACTCCAC	1200
ACATCTGTAC	CATTCTTGAG	TGATCGCTTA	GGAATGAATG	TGATTTGAAC	TCATTCATGT	1260
TGAGAGGGTG	TCAAATTGAG	AACCAGGTAG	ATCCCCACCA	CCTACAGTAA	AAAGGACCCT	1320
AAAGTAAATT	GGTTGAAGAA	ATTAGATCCC	AAAGATTCTT	GGTGAATTTT	GAAGTCTTCA	1380
TCAGTATATC	CATATTAAAA	CGAGATGACA	GAAGCCAAAG	TAATTATGGG	CTGACAGGAC	1440
AACTGGATCA	GTTTCATTAA	AAAGGGCAAA	CTTGAAGATA	AATCTTTTGA	CTCCAGCTCT	1500
TTAGAGGATC	TAAAGTGACC	TTGATGGACA	GTGGAAGAAA	TCACAACATG	GAATTCCTCG	1560
AATAACAATT	TATTGACTTT	AAATAATTTT	GTCTAATGCT	ACATATACAC	AATTAAAAAA	1620
CCTTTACTACT	AAAAAAAAAA	AAAAAA				

SEQ ID NO:26 ~~Seq ID NO: 26~~ Protein sequence:
 Protein Accession #: AAH01972.1

1	11	21	31	41	51	
MDKSGIDSLD	HVTSDAVELA	NRSDNSSDSS	LFKTQCIPYS	PKGEKRNPIR	KFVRTPESVH	60
ASDSSSDSSF	EPIPLTIKAI	FERFKNRKKR	YKKKKKRRYQ	PTGRPRGRPE	GRRNPIYSLI	120
DKKKQFRSRG	SGFPFLESEN	EKNAPWRKIL	TFEQAVARGF	FNYIEKLKYE	HHLKESLKQM	180
NVGEDLENED	FDSRRYKFLD	DDGSISPIEE	STAEDEDATH	LEDNECDIKL	AGDSFIVSSE	240
FPVRLSVYLE	EEDITEEAAL	SKKRATKAKN	TGQRGLKM			

SEQ ID NO:27 ~~Seq ID NO: 27~~ DNA sequence
 Nucleic Acid Accession #: AK027016
 Coding sequence: 207-1043

1	11	21	31	41	51	
CTTTTCTTCC	GCACGGTTGG	AGGAGGTCGG	CTGGTTATCG	GGAGTTGGAG	GGCTGAGGTC	60
GGGAGGGTGG	TGTGTACAGA	GCTCTAGGAC	TCACGCACCA	GGCCAGTCGC	GGATTTTGGG	120

CCGAGGCCTG	GGTTACAAGC	AGCAAGTGCG	CGGTTGGGGC	CACTGCGAGG	CCGTTTTAGA	180
AAACTGTTTA	AAACAAAGAG	CAATTGATGG	ATAAATCAGG	AATAGATTCT	CTTGACCATG	240
TGACATCTGA	TGCTGTGGAA	CTTGCAAATC	GAAGTGATAA	CTCTTCTGAT	AGCAGCTTAT	300
TTAAAACTCA	GTGTATCCCT	TACTCACCTA	AAGGGGAGAA	AAGAAACCCC	ATTCGAAAAT	360
TTGTTTCGTAC	ACCTGAAAGT	GTTACGCAA	GTGATTCATC	AAGTGACTCA	TCTTTTGAAC	420
CAATACCATT	GACTATAAAA	GCTATTTTTG	AAAGATTCAA	GAACAGGAAA	AAGAGATATA	480
AAAAAAAAGAA	AAAGAGGAGG	TACCAGCCAA	CAGGAAGACC	ACGGGGAAGA	CCAGAAGGAA	540
GGAGAAATCC	TATATACTCA	CTAATAGATA	AGAAGAAAACA	ATTTAGAAGC	AGAGGATCTG	600
GCTTCCCATT	TTTAGAATCA	GAGAATGAAA	AAAACGCACC	TTGGAGAAAA	ATTTTAAACGT	660
TTGAGCAAGC	TGTTGCAAGA	GGATTTTTTTA	ACTATATTGA	AAAGCTGAAG	TATGAACACC	720
ACCTGAAAAGA	ATCATTGAAG	CAAATGAATG	TTGGTGAAAG	TTTAGAAAAT	GAAGATTTTG	780
ACAGTCGTAG	ATACAAATTT	TTGGATGATG	ATGGATCCAT	TTCTCCTATT	GAGGAGTCAA	840
CAGCAGAGGA	TGAGGATGCA	ACACATCTTG	AAGATAACGA	ATGTGATATC	AAATTGGCAG	900
GGGATAGTTT	CATAGTAAGT	TCTGAATTCC	CTGTAAGACT	GAGTGTATAC	TTAGAAGAAG	960
AGGATATTAC	TGAAGAAGCT	GCTTTGTCTA	AAAAGAGAGC	TACAAAAGCC	AAAAATACTG	1020
GACAGAGAGG	CCTGAAAATG	TGACAGGATC	ATGAATGTCA	AAGGCTTTTA	TCTTGAGAAC	1080
ATGGTGTCTG	GAGTTAAAGG	TATTGGCATA	CTCCACACAT	CTGTACCATT	CTTGAGTGAT	1140
CGCTTAGGAA	TGAATGTGAT	TTGAACTCAT	TCATGTTGAG	AGGGTGTCAA	ATTGAGAACC	1200
AGGTAGATCC	CCACCACCTA	CAGTAAAAAG	GACCCTAAAG	TAAATTGGTT	GAAGAAATTA	1260
GATCCCAAAG	ATTCTTGGTG	AATTTTGAAG	TCTTCATCAG	TATATCCATA	TTAAAACGAG	1320
ATGACAGAAG	CCAAAGTAAT	TATGGCAAGT	AATGGTTTTT	ATCTTAACTA	TAAGTTATTT	1380
GCTCAAGGGT	GTAATGGTCA	TTACCAAGGC	TTTTAGAAATG	CAGTTTCTCA	TTTGCTGTGG	1440
ACATGACCAT	AAAAAAAAT	TTCCCAGTAG	GTTTTCTATC	TGCTACGTTG	CTAGCAATCA	1500
GCTTATTGGG	AACAGTTGAT	TAAGTGAAT	AGAAATGCAA	TACAAATAAA	ATGTGAACCA	1560
CATGTGATT	TTCTTTAAAA	TCAGTGAGAT	TTGAAAATTC	TCCTAGATCT	CTTGAATCAT	1620
GCAAATTTGC	TTTGCCTTTA	TATTGTAACC	CTTGTGGGTT	GCTAATAACC	AAGCAGTTTG	1680
TAGTAGAGTT	AACTCAGGCT	CGTTCTAGGG	ACTCATTTCAT	GTTCACTCAC	TGTACACTCA	1740
TCTCTGAAAA	TGTAATAATTT	ACTTTTATAC	TATTGTTATG	TAGGGCTGAC	AGGACAACCTG	1800
GATCAGTTTC	ATTAAAAAGG	TATGTATGCA	TTAGAAAAGA	CATTTGTATG	GGTCATTTCA	1860
AAGAGGGCTT	ATGAGGCTGT	GAAACCCAGA	GCTCTTAACG	CTGTGACCAA	AGATGGAAGT	1920
TCTCTATAGG	AAGCCATAGC	ACTCCTAATG	TTTGGTGCTA	TGTTTTCCCTG	AGGAGATATA	1980
AAACGTAATA	ATCCATGATT	GTTGCCATGT	GAGAGTTTTTA	AAGGTTAATC	AAAATTTCTC	2040
TTCTTCAGGG	CAAACCTGAA	GATAAATCTT	TTGACTCCAG	CTCTTTAGAG	GATCTAAAGT	2100
GACCTTGATG	GACAGTGGAA	GAAATCACAA	CATGGAATTC	CTCGAATAAC	AATTTATTGA	2160
CTTTAAATAA	TTTTGTCTAA	TGCTACATAT	ACACAATTAA	AAAACCTTTA	CACTATTTCT	2220
AGAAAGTCAG	CATGTATTTT	TGGCTCGAAG	TTTCTCTAGT	GTTTTCTGTG	GAAGGAATAA	2280
AAATTTGAGT	TTCAAAAAAA	AAAAAAAATA	AAAAAAAATA	AAAAAAAATA	AAAAAA	

SEQ ID NO:28 Seq ID NO: 28 Protein sequence:
Protein Accession #: BAB15628.1

1	11	21	31	41	51	
MDKSGIDSLD	HVTSDAVELA	NRSDNSSDSS	LFKTQCIPYS	PKGEKRNPIR	KFVRTPESVH	60
ASDSSSDSSF	EPIPLTIKAI	FERFKNRKKR	YKKKKKRRYQ	PTGRPRGRPE	GRRNPIYSLI	120
DKKKQFRSRG	SGFPFLESEN	EKNAPWRKIL	TFEQAVARGF	FNIEKLKYE	HHLKESLKQM	180
NVGEDLENED	FDSRRYKFLD	DDGSISPIEE	STAEDEDATH	LEDNECDIKL	AGDSFIVSSE	240
FPVRLSVYLE	EEDITEEAAL	SKKRATKAKN	TGQRGLKM			

SEQ ID NO:29 Seq ID NO: 29 DNA sequence
Nucleic Acid Accession #: NM_004289.3
Coding sequence: 493-1695

1	11	21	31	41	51	
GCCGCCGCCT	CGTCCACCGG	AGGAGCCGGC	GCCAGCGTGG	ACGGCGGCAG	CCAGGCTGTG	60
CAGGGGGGCG	GCGGGGACCC	CCGAGCGGCT	CGGAGTGGCC	CCTTGGACGC	CGGGGAAGAG	120
GAGAAGGCAC	CCGCGGAACC	GACGGCTCAG	GTGCCGGACG	CTGGCGGATG	TGCGAGCGAG	180
GAGAATGGGG	TACTAAGAGA	AAAGCACGAA	GCTGTGGATC	ATAGTTCCCA	GCATGAGGAA	240

AATGAAGAAA	GGGTGTCAGC	CCAGAAGGAG	AACTCACTTC	AGCAGAATGA	TGATGATGAA	300
AACAAAATAG	CAGAGAAACC	TGACTGGGAG	GCAGAAAAGA	CCACTGAATC	TAGAAATGAG	360
AGACATCTGA	ATGGGACAGA	TACTTCTTTC	TCTCTGGAAG	ACTTATTCCA	GTTGCTTTCA	420
TCACAGCCTG	AAAATTCAC	GGAGGGCATC	TCATTGGGAG	ATATTCCCTCT	TCCAGGCAGT	480
ATCAGTGTAT	GCATGAATTC	TTCAGCACAT	TATCATGTAA	ACTTCAGCCA	GGCTATAAGT	540
CAGGATGTGA	ATCTTCATGA	GGCCATCTTG	CTTTGTCCCA	ACAATACATT	TAGAAGAGAT	600
CCAACAGCAA	GGACTTCACA	GTCACAAGAA	CCATTTCTGC	AGTTAAATTC	TCATACCACC	660
AATCCTGAGC	AAACCCTTCC	TGGAACATA	TTGACAGGAT	TTCTTTTACC	GGTTGACAAT	720
CATATGAGGA	ATCTAACAAG	CCAAGACCTA	CTGTATGACC	TTGACATAAA	TATATTTGAT	780
GAGATAAACT	TAATGTCATT	GGCCACAGAA	GACAACTTTG	ATCCAATCGA	TGTTTCTCAG	840
CTTTTGTATG	AACCAGATTC	TGATTCTGGC	CTTTCTTTAG	ATTCAAGTCA	CAATAATACC	900
TCTGTCAATC	AGTCTAATTC	CTCTCACTCT	GTGTGTGATG	AAGGTGCTAT	AGGTTATTGC	960
ACTGACCATG	AATCTAGTTC	CCATCATGAC	TTAGAAGGTG	CTGTAGGTGG	CTACTACCCA	1020
GAACCCAGTA	AGCTTTGTCA	CTTGGATCAA	AGTGATTCTG	ATTTCCATGG	AGATCTTACA	1080
TTTCAACACG	TATTTTCATA	CCACACTTAC	CAGTACAGC	CAACTGCACC	AGAATCTACT	1140
TCTGAACCTT	TTCCGTGGCC	TGGGAAGTCA	CAGAAAGATA	GGAGTAGATA	CCTTGAAGAC	1200
ACAGATAGAA	ACTTGAGCCG	TGATGAACAG	CGTGCTAAAG	CTTTGCATAT	CCCTTTTTTCT	1260
GATAGTAAAA	TTGTCGGCAT	GCCTGTTGAT	TCTTTCAATA	GCATGTTAAG	TAGATATTAT	1320
CTGACAGACC	TACAAGTCTC	ACTTATCCGT	GACATCAGAC	GAAGAGGGAA	AAATAAAGTT	1380
GCTGCGCAGA	ACTGTCGTAA	ACGCAAATTG	GACATAATTT	TGAATTTAGA	AGATGATGTA	1440
TGTAACCTGC	AAGCAAAGAA	GGAAACTCTT	AAGAGAGAGC	AAGCACAAATG	TAACAAAGCT	1500
ATTAACATAA	TGAAACAGAA	ACTGCATGAC	CTTTATCATG	ATATTTTTTAG	TAGATTAAGA	1560
GATGACCAAG	GTAGGCCAGT	CAATCCCAAC	CACTATGCTC	TCCAGTGTAC	CCATGATGGA	1620
AGTATCTTGA	TAGTACCCAA	AGAAGTGGTG	GCCTCAGGCC	ACAAAAAGGA	AACCCAAAAG	1680
GGAAAGAGAA	AGTGAGAAGA	AACTGAAGAT	GGACTCTATT	ATGTGAAGTA	GTAATGTTCA	1740
GAAACTGATT	ATTTGGATCA	GAAACCATTG	AAACTGCTTC	AAGAATTGTA	TCTTTAAGTA	1800
CTGCTACTTG	AATAACTCAG	TTAACGCTGT	TTTGAAGCTT	ACATGGACAA	ATGTTTAGGA	1860
CTTCAAGATC	ACACTTGTGG	GCAATCTGGG	GGAGCCACAA	CTTTTCATGA	AGTGCATTGT	1920
ATACAAAATT	CATAGTTATG	TCCAAAGAAT	AGGTTAACAT	GAAAACCCAG	TAAGACTTTC	1980
CATCTTGCCA	GCCATCCTTT	TTAAGAGTAA	GTTGGTTACT	TCAAAAAGAG	CAAACACTGG	2040
GGATCAAATT	ATTTTAAGAG	GTATTTTCAGT	TTTAAATGCA	AAATAGCCTT	ATTTTTCATT	2100
AGTTTGTTAG	CACATATAGT	AGCTTTTCAA	ACACTATTTT	AATCTTTATA	TTTAACTTAT	2160
AAATTTTGCT	TTCT					

SEQ ID NO:30 Seq ID NO: 30 Protein sequence:
Protein Accession #: NP_004280

1	11	21	31	41	51	
MNSSAHYHVN	FSQAISQDVN	LHEAILLCPN	NTFRRDPTAR	TSQSQEPFLQ	LNSHTTNPEQ	60
TLPGTNLTGF	LSPVDNHMRN	LTSQDLLYDL	DINIFDEINL	MSLATEDNFD	PIDVSQFLDE	120
PDSDSGLSLD	SSHNTSVIK	SNSSHVCDE	GAIGYCTDHE	SSSHDLEGA	VGGYYPEPSK	180
LCHLDQSDSD	FHGDLTFQHV	FHNHTYHLQP	TAPESTSEPF	PWPGKSQKIR	SRYLEDTDRN	240
LSRDEQRAKA	LHIPFSVDEI	VGMPVDSFNS	MLSRYYLTDL	QVSLIRDIRR	RGKNKVAAQN	300
CRKRKLDIIL	NLEDDVCNLQ	AKKETLKRQ	AQCNKAINIM	KQKLHDLYHD	IFSLRLDDQG	360
RPVNPNNHYAL	QCTHDGSILI	VPKELVASGH	KKETQKGKRR			

SEQ ID NO:31 Seq ID NO: 31 DNA sequence
Nucleic Acid Accession #: NM_033260.1
Coding sequence: 1-1208

1	11	21	31	41	51	
ATGAAGTTGG	AGGTGTTTCGT	CCCTCGCGCG	CCCCACGGGG	ACAAGCAGGG	CAGTGACCTG	60
GAGGGCGCGG	GCGGCAGCGA	CGCGCCGTCC	CCGCTGTCGG	CGGCGGGAGA	CGACTCCCTG	120
GGCTCAGATG	GGGACTGCGC	GGCCAAGCCG	TCCGCGGGCG	GCGGCGCCAG	AGATACGCAG	180
GGCGACGGCG	AACAGAGTGC	GGGAGGCGGG	CCGGGCGCGG	AGGAGGCGAT	CCCGGCAGCA	240
GCTGCTGCAG	CGGTGGTGGC	GGAGGGCGCG	GAGGCCGGGG	CGGCGGGGCC	AGGCGCGGGC	300
GGCGCGGGGA	GCGGCGAGGG	TGCACGCAGC	AAGCCATATA	CGCGGCGGCC	CAAGCCCCCC	360

TACTCGTACA	TCGCGCTCAT	CGCCATGGCC	ATCCGCGACT	CGGCGGGCGG	GCGCTTGACG	420
CTGGCGGAGA	TCAACGAGTA	CCTCATGGGC	AAGTTCCCCT	TTTCCGCGG	CAGCTACACG	480
GGCTGGCGCA	ACTCCGTGCG	CCACAACCTT	TCGCTCAACG	ACTGCTTCGT	CAAGGTGCTG	540
CGCGACCCCT	CGCGGCCCTG	GGCGAAGGAC	AACTACTGGA	TGCTCAACCC	CAACAGCGAG	600
TACACCTTCG	CCGACGGGGT	CTTCCGCCGC	CGCCGCAAGC	GCCTCAGCCA	CCGCGCGCCG	660
GTCCCCGCGC	CCGGGCTGCG	GCCCGAGGAG	GCCCCGGGCC	TCCCCGCCGC	CCCGCCGCCC	720
GCGCCCGCCG	CCCCGGCCTC	GCCCCGCATG	CGCTCGCCCG	CCCGCCAGGA	GGAGCGCGCC	780
AGCCCCGCGG	GCAAGTTCTC	CAGCTCCTTC	GCCATCGACA	GCATCCTGCG	CAAGCCCTTC	840
CGCAGCCGTC	GCCTCAGGGA	CACGGCCCCC	GGGACGACGC	TTCAGTGGGG	CGCCGCGCCC	900
TGCCCCGCCG	TGCCCCGCGT	CCCCGCGCTC	CTCCCCGCGG	CGCCCTGCAG	GGCCCTGCTG	960
CCGCTCTGCG	CGTACGGCGC	GGGCGAGCCG	GCGCGGCTGG	GCGCGCGCGA	GGCCGAGGTG	1020
CCACCGACCG	CGCCGCCCTT	CCTGCTTGCA	CCTCTCCCGG	CGGCGGCCCC	CGCCAAGCCA	1080
CTCCGAGGCC	CGGCGGCCGG	CGGCGCGCAC	CTGTACTGCC	CCCTGCGGCT	GCCCGCAGCC	1140
CTGCAGGCGG	CCTTAGTCCG	NCGTCCTGGC	CCGCACCTGT	CGTACCCGGT	GGAGACGCTC	1200
CTAGCTTGA						

SEO ID NO:32 Seq ID NO: 32 Protein sequence:
Protein Accession #: NP_150285.1

1	11	21	31	41	51	
MKLEVFVPRA	AHGDKQGS DL	EGAGGS DAPS	PLSAAGD DSL	GSDGDCAAKP	SAGGGARDTQ	60
GDGEQSAGGG	PGAEEAIPAA	AAA AVVAEGA	EAGAAGPGAG	GAGSGEGARS	KPYTRRPKPP	120
YSYIALIAMA	IRDSAGGRLT	LAEINEYLMG	KFPFFRGSYT	GWRNSVRHNL	SLNDCFVKVL	180
RDPSRPWGKD	NYWMLNPNSE	YTFADGVFRR	RRKRLSHRAP	VPAPGLRPEE	APGLPAAPPP	240
APAAPASPRM	RSPARQEERA	SPAGKFSSSF	AIDSILRKPF	RSRRLRDTAP	GTTLQWGAAP	300
CPPLPAFPAL	LPAAPCRALL	PLCAYGAGEP	ARLGAREAEV	PPTAPPLLLA	PLPAAAPAKP	360
LRGPAAGGAH	LYCPLRLPAA	LQAALVRRPG	PHLSYPVETL	LA		

SEO ID NO:33 Seq ID NO: 33 DNA sequence
Nucleic Acid Accession #: NM_012128.2
Coding sequence: 43-2796

1	11	21	31	41	51	
GAACAAACCA	ACATT TGAGC	CAGGAATAAC	TAGAGAGGAA	CAATGGGGTT	ATTCAGAGGT	60
TTTGT TTTCC	TCTTAGTTCT	GTGCCTGCTG	CACCAGTCAA	ATACTTCCTT	CATTAAGCTG	120
AATAATAATG	GCTTTGAAGA	TATTGTCAAT	GTTATAGATC	CTAGTGTGCC	AGAAGATGAA	180
AAAATAATTG	AACAAATAGA	GGATATGGTG	ACTACAGCTT	CTACGTACCT	GTTTGAAGCC	240
ACAGAAAAAA	GATTTTTTTT	CAAAAATGTA	TCTATATTAA	TTCTTGAGAA	TTGAAGGAA	300
AATCCTCAGT	ACAAAAGGCC	AAAACATGAA	AACCATAAAC	ATGCTGATGT	TATAGTTGCA	360
CCACCTACAC	TCCCAGGTAG	AGATGAACCA	TACACCAAGC	AGTTCACAGA	ATGTGGAGAG	420
AAAGGCGAAT	ACATTCACTT	CACCCCTGAC	CTTCTACTTG	GAAAAAACA	AAATGAATAT	480
GGACCACCAG	GCAAAC TGTT	TGTCCATGAG	TGGGCTCACC	TCCGGTGGGG	AGTGT TTGAT	540
GAGTACAATG	AAGATCAGCC	TTTCTACCGT	GCTAAGTCAA	AAAAAATCGA	AGCAACAAGG	600
TGTTCCGCAG	GTATCTCTGG	TAGAAATAGA	GTTTATAAGT	GTCAAGGAGG	CAGCTGTCTT	660
AGTAGAGCAT	GCAGAATTGA	TTCTACAACA	AAACTGTATG	GAAAAGATTG	TCAATTCTTT	720
CCTGATAAAG	TACAAACAGA	AAAAGCATCC	ATAATGTTTA	TGCAAAGTAT	TGATTCTGTT	780
GTTGAATTTT	GTAACGAAAA	AACCCATAAT	CAAGAAGCTC	CAAGCCTACA	AAACATAAAG	840
TGCAATTTTA	GAAGTACATG	GGAGGTGATT	AGCAATTCTG	AGGATTTTAA	AAACACCATA	900
CCCATGGTGA	CACCACCTCC	TCCACCTGTC	TTCTCATTGC	TGAAGATCCG	TCAAAGAATT	960
GTGTGCTTAG	TTCTTGATAA	GTCTGGAAGC	ATGGGGGGTA	AGGACCGCCT	AAATCGAATG	1020
AATCAAGCAG	CAAAACATTT	CCTGCTGCAG	ACTGTTGAAA	ATGGATCCTG	GGTGGGGATG	1080
GTTCACTTTG	ATAGTACTGC	CACTATTGTA	ATAAGCTAAA	TCCAAATAAA	AAGCAGTGAT	1140
GAAAGAAACA	CAC TCATGGC	AGGATTACCT	ACATATCCTC	TGGGAGGAAC	TTCCATCTGC	1200
TCTGGAATTA	AATATGCATT	TCAGGTGATT	GGAGAGCTAC	ATTCCCAACT	CGATGGATCC	1260
GAAGTACTGC	TGCTGACTGA	TGGGGAGGAT	AACACTGCAA	GTTCTTGAT	TGATGAAGTG	1320
AAACAAAGTG	GGGCCATTGT	TCATTTTATT	GCTTTGGGAA	GAGCTGCTGA	TGAAGCAGTA	1380
ATAGAGATGA	GCAAGATAAC	AGGAGGAAGT	CATTTT TATG	TTTCAGATGA	AGCTCAGAAC	1440

AATGGCCTCA	TTGATGCTTT	TGGGGCTCTT	ACATCAGGAA	ATACTGATCT	CTCCCAGAAG	1500
TCCCTTCAGC	TCGAAAGTAA	GGGATTAACA	CTGAATAGTA	ATGCCTGGAT	GAACGACACT	1560
GTCATAATTG	ATAGTACAGT	GGGAAAGGAC	ACGTTCTTTC	TCATCACATG	GAACAGTCTG	1620
CCTCCCAGTA	TTTCTCTCTG	GGATCCCAGT	GGAACAATAA	TGGAATAATT	CACAGTGGAT	1680
GCAAATTCCA	AAATGGCCTA	TCTCAGTATT	CCAGGAACATG	CAAAGGTGGG	CACCTGGGCA	1740
TACAATCTTC	AAGCCAAAGC	GAACCCAGAA	ACATTAACTA	TTACAGTAAC	TTCTCGAGCA	1800
GCAAATCTTT	CTGTGCCCTCC	AATCACAGTG	AATGCTAAAA	TGAATAAGGA	CGTAAACAGT	1860
TTCCCCAGCC	CAATGATTGT	TTACGCAGAA	ATTCTACAAG	GATATGTACC	TGTTCTTGGA	1920
GCCAATGTGA	CTGCTTTCAT	TGAATCACAG	AATGGACATA	CAGAAGTTTT	GGAACTTTTG	1980
GATAATGGTG	CAGGCGCTGA	TTCTTTCAAG	AATGATGGAG	TCTACTCCAG	GTATTTTACA	2040
GCATATACAG	AAAATGGCAG	ATATAGCTTA	AAAGTTCGGG	CTCATGGAGG	AGCAAACACT	2100
GCCAGGCTAA	AATTACGGCC	TCCACTGAAT	AGAGCCGCGT	ACATACCAGG	CTGGGTAGTG	2160
AACGGGGAAA	TTGAAGCAAA	CCCGCCAAGA	CCTGAAATTG	ATGAGGATAC	TCAGACCACC	2220
TTGGAGGATT	TCAGCCGAAC	AGCATCCGGA	GGTGCATTTG	TGGTATCACA	AGTCCCAAGC	2280
CTTCCCTTGC	CTGACCAATA	CCCACCAAGT	CAAATCACAG	ACCTTGATGC	CACAGTTCAT	2340
GAGGATAAGA	TTATTCTTAC	ATGGACAGCA	CCAGGAGATA	ATTTTGATGT	TGGAAAAGTT	2400
CAACGTTATA	TCATAAGAA	AAGTGCAAGT	ATTCTTGATC	TAAGAGACAG	TTTTTGATGAT	2460
GCTCTTCAAG	TAAATACTAC	TGATCTGTCA	CCAAAGGAGG	CCAACTCCAA	GGAAAGCTTT	2520
GCATTTAAAC	CAGAAAATAT	CTCAGAAGAA	AATGCAACCC	ACATATTTAT	TGCCATTAAA	2580
AGTATAGATA	AAAGCAATTT	GACATCAAAA	GTATCCAACA	TTGCACAAGT	AACCTTTGTTT	2640
ATCCCTCAAG	CAAATCCTGA	TGACATTGAT	CCTACTCCTA	CTCCTACTCC	TACTCCTGAT	2700
AAAAGTCATA	ATTCTGGAGT	TAATATTTCT	ACGCTGGTAT	TGTCTGTGAT	TGGGTCTGTT	2760
GTAATTGTTA	ACTTTATTTT	AAGTACCACC	ATTTGAACCT	TAACGAAGAA	AAAAATCTTC	2820
AAGTAGACCT	AGAAGAGAGT	TTTAAAAAAC	AAAACAATGT	AAGTAAAGGA	TATTTCTGAA	2880
TCTTAAAATT	CATCCCATGT	GTGATCATAA	ACTCATAAAA	ATAATTTTAA	GATGTCGGAA	2940
AAGGATACTT	TGATTAAATA	AAAACACTCA	TGGATATGTA	AAAAGTGTCA	AGATTAAAAAT	3000
TTAATAGTTT	CATTTATTTG	TTATTTTATT	TGTAAGAAAT	AGTGATGAAC	AAAGATCCTT	3060
TTTCATACTG	ATACCTGGTT	GTATATTATT	TGATGCAACA	GTTTTCTGAA	ATGATATTTT	3120
AAATTGCATC	AAGAAATTAA	AATCATCTAT	CTGAGTAGTC	AAAATACAAG	TAAAGGAGAG	3180
CAATAAACA	ACATTTGGAA	AAAAAAAAAA	AAAAAAAAAA			

SEQ ID NO:34 Seq ID NO: 34 Protein sequence:
Protein Accession #: NP_036260.1

1	11	21	31	41	51	
MGLFRGFVFL	LVLCLLHQSN	TSFIKLNNG	FEDIVIVIDP	SVPEDEKIE	QIEDMVTTAS	60
TYLFEATEKR	FFFKNVSILI	PENWKENPQY	KRPKHENHKH	ADVIVAPPTL	PGRDEPYTKQ	120
FTECGEKGEY	IHFTPDLLLG	KKQNEYGPPG	KLFVHEWAHL	RWGVFDEYNE	DQPFYRAKSK	180
KIEATRCASG	ISGRNRVYKC	QGGSCLSRAC	RIDSTTKLYG	KDCQFFPDKV	QTEKASIMFM	240
QSIDSVVEFC	NEKTHNQEAP	SLQNIKCNFR	STWEVISNSE	DFKNTIPMVT	PPPPPVFSL	300
KIRQRIVCLV	LDKSGSMGGK	DRLNRMNQAA	KHFLQTVEN	GSWVGMVHFD	STATIVNKLI	360
QIKSSDERNT	LMAGLPTYPL	GGTSICSGIK	YAFQVIGELH	SQLDGSEVLL	LTDGEDNTAS	420
SCIDEVKQSG	AIVHFIALGR	AADEAVIEMS	KITGGSHFYV	SDEAQNNGLI	DAFGALTSN	480
TDLSQKSLQL	ESKGLTLNSN	AWMNDTVIID	STVGKDTFFL	ITWNSLPSSI	SLWDPSTGIM	540
ENFTVDATSK	MAYLSIPGTA	KVGTWAYNLQ	AKANPETLTI	TVTSRAANSS	VPPITVNAKM	600
NKDVSFPSP	MIVYAEILQG	YVPVLGANVT	AFIESQNGHT	EVLELLDNGA	GADSFKNMGV	660
YSRYFTAYTE	NGRYSCLKVRA	HGGANTARLK	LRPPLNRAAY	IPGWVVNGEI	EANPPRPEID	720
EDTQTTLDEF	SRASGGAFV	VSQVPSLPLP	DQYPPSQITD	LDATVHEDKI	ILTWAPGDN	780
FDVGKVQRYI	IRISASILDL	RDSFDDALQV	NTTDLSPKEA	NSKESFAFKP	ENISEENATH	840
IFIAIKSIDK	SNLTSKVSNI	AQVTLFIPQA	NPDDIDPTPT	PTPTPKSHN	SGVNISTLVL	900
SVIGSVVIVN	FILSTTI					

SEQ ID NO:35 Seq ID NO: 35 DNA sequence
Nucleic Acid Accession #: NM_000901.1
Coding sequence: 217-3171

1	11	21	31	41	51	
CGCGGGAGCC	AAC TTCAGGC	TGCTCAGAGG	AAGCCCGTGC	AGTCAGTCAC	CTGGGTGCAA	60
GAGCGTTGCT	GCCTCGGGCT	CTCCCGCTGC	AGGGAGAGCG	GCACTCGCTG	GCCTGGATGT	120
GGTTGGATTT	AGGGGGGCTC	CGCAGCAGGG	GTTTCGTGGC	GGTGGCAAGC	GCTGCAACAG	180
GTAGACGGCG	AGAGACGGAC	CCCGGCCGAG	GCAGGGATGG	AGACCAAAGG	CTACCACAGT	240
CTCCCTGAAG	GTCTAGATAT	GGAAAGACGG	TGGGGTCAAG	TTTCTCAGGC	TGTGGAGCGT	300
TCTTCCCTGG	GACCTACAGA	GAGGACCGAT	GAGAATAACT	ACATGGAGAT	TGTCAACGTA	360
AGCTGTGTTT	CCGGTGCTAT	TCCAAACAAC	AGTACTCAAG	GAAGCAGCAA	AGAAAAACAA	420
GAAGTACTCC	CTTGCCCTTCA	GCAAGACAAT	AATCGGCCTG	GGATTTTAAC	ATCTGATATT	480
AAAACTGAGC	TGGAATCTAA	GGAAC TTTCA	GCAACTGTAG	CTGAGTCCAT	GGGTTTATAT	540
ATGGATTCTG	TAAGAGATGC	TGACTATTCC	TATGAGCAGC	AGAACCAACA	AGGAAGCATG	600
AGTCCAGCTA	AGATTTATCA	GAATGTTGAA	CAGCTGGTGA	AATTTTACAA	AGGAAATGGC	660
CATCGTCCCT	CCACTCTAAG	TTGTGTGAAC	ACGCCCTTGA	GATCATTTAT	GTCTGACTCT	720
GGGAGCTCCG	TGAATGGTGG	CGTCATGCGC	GCCATTGTTA	AAAGCCCTAT	CATGTGTCAT	780
GAGAAAAGCC	CGTCTGTTTG	CAGCCCTCTG	AACATGACAT	CTTCGGTTTG	CAGCCCTGCT	840
GGAATCAACT	CTGTGTCCTC	CACCACAGCC	AGCTTTGGCA	GTTTTCCAGT	GCACAGCCCA	900
ATCACCCAGG	GAAGTCCCTC	GACATGCTCC	CCTAATGCTG	AAAATCGAGG	CTCCAGGTCG	960
CACAGCCCTG	CACATGCTAG	CAATGTGGGC	TCTCCTCTCT	CAAGTCCGTT	AAGTAGCATG	1020
AAATCCTCAA	TTTCCAGCCC	TCCAAGTCAC	TGCAGTGTA	AATCTCCAGT	CTCCAGTCCC	1080
AATAATGTCA	CTCTGAGATC	CTCTGTGTCT	AGCCCTGCAA	ATATTAACAA	CTCAAGGTGC	1140
TCTGTTTCCA	GCCCTTCGAA	CACTAATAAC	AGATCCACGC	TTTCCAGTCC	GGCAGCCAGT	1200
ACTGTGGGAT	CTATCTGTAG	CCCTGTAAAC	AATGCCCTCA	GCTACACTGC	TTCTGGCACC	1260
TCTGCTGGAT	CCAGTACATT	GCGGGATGTG	GTTCCCAGTC	CAGACACGCA	GGAGAAAGGT	1320
GCTCAAGAGG	TCCCTTTTCC	TAAGACTGAG	GAAGTAGAGA	GTGCCATCTC	AAATGGTGTG	1380
ACTGGCCAGC	TTAATATTGT	CCAGTACATA	AAACCAGAAC	CAGATGGAGC	TTTTAGCAGC	1440
TCATGTCTAG	GAGGAAATAG	CAAAATAAAT	TCGGATTCTT	CATTCTCAGT	ACCAATAAAG	1500
CAAGAATCAA	CCAAGCATTC	ATGTTCAGGC	ACCTCTTTTA	AAGGGAATCC	AACAGTAAAC	1560
CCGTTTCCAT	TTATGGATGG	CTCGTATTTT	TCCTTTATGG	ATGATAAAGA	CTATTATTCC	1620
CTATCAGGAA	TTTTAGGACC	ACCTGTGCCC	GGCTTTGATG	GTAAGTGTGA	AGGCAGCGGA	1680
TTCCCAGTGG	GTATTAAACA	AGAACCAGAT	GACGGGAGCT	ATTACCCAGA	GGCCAGCATC	1740
CCTTCCTCTG	CTATTGTTGG	GGTGAATTCA	GGTGGACAGT	CCTTCCACTA	CAGGATTGGT	1800
GCTCAAGGTA	CAATATCTTT	ATCACGATCG	CTAGAGACCC	AATCTTTCCA	ACACCTGAGT	1860
TCCTTTCCCT	CTGTCAATAC	TTTAGTGGAG	TCATGGAAAT	CACACGGCGA	CCTGTCTGCT	1920
AGAAGAAGTG	ATGGGTATCC	GGTCTTAGAA	TACATTCCAG	AAAATGTATC	AAGCTCTACT	1980
TTACGAAGTG	TTTCTACTGG	ATCTTCAAGA	CCTTCAAAAA	TATGTTTGGT	GTGTGGGGAT	2040
GAGGCTTCAG	GATGCCATTA	TGGGGTAGTC	ACCTGTGGCA	GCTGCAAAGT	TTTCTTCAAA	2100
AGAGCAGTGG	AAGGGCAACA	CAACTATTTA	TGTGCTGGAA	GAAATGATTG	CATCATTGAT	2160
AAGATTTCGAC	GAAAGAATTG	TCCTGCTTGC	AGACTTCAGA	AATGTCTTCA	AGCTGGAATG	2220
AATTTAGGAG	CACGAAAGTC	AAAGAAGTTG	GGAAAGTTAA	AAGGGATTCA	CGAGGAGCAG	2280
CCACAGCAGC	AGCAGCCCCC	ACCCCCACCC	CCACCCCCGC	AAAGCCCAGA	GGAAGGGACA	2340
ACGTACATCG	CTCCTGCAAA	AGAACCCTCG	GTCAACACAG	CACTGGTTCC	TCAGCTCTCC	2400
ACAATCTCAC	GAGCGCTCAC	ACCTTCCCCC	GTTATGGTCC	TTGAAAACAT	TGAACCTGAA	2460
ATTGTATATG	CAGGCTATGA	CAGCTCAAAA	CCAGATACAG	CCGAAAATCT	GCTCTCCACG	2520
CTCAACCGCT	TAGCAGGCAA	ACAGATGATC	CAAGTCGTGA	AGTGGGCAAA	GGTACTTCCA	2580
GGATTTAAAA	ACTTGCCCTC	TGAGGACCAA	ATTACCCTAA	TCCAGTATTC	TTGGATGTGT	2640
CTATCATCAT	TTGCCTTGAG	CTGGAGATCG	TACAAACATA	CGAACAGCCA	ATTTCTCTAT	2700
TTTGCACCAG	ACCTAGTCTT	TAATGAAGAG	AAGATGCATC	AGTCTGCCAT	GTATGAACTA	2760
TGCCAGGGGA	TGCACCAAAT	CAGCCTTCAG	TTCGTTTCGAC	TGCAGCTCAC	CTTTGAAGAA	2820
TACACCATCA	TGAAAGTTT	GCTGCTACTA	AGCACAATTC	CAAAGGATGG	CCTCAAAAGC	2880
CAGGCTGCAT	TTGAAGAAAT	GAGGACAAAT	TACATCAAAG	AACTGAGGAA	GATGGTAACT	2940
AAGTGTCCCA	ACAATTCTGG	GCAGAGCTGG	CAGAGGTTCT	ACCAACTGAC	CAAGCTGCTG	3000
GACTCCATGC	ATGACCTGGT	GAGCGACCTG	CTGGAATCTT	GCTTCTACAC	CTTCCGAGAG	3060
TCCCAGTCGC	TGAAGGTAGA	GTTCCCCGCA	ATGCTGGTGG	AGATCATCAG	CGACCAGCTG	3120
CCCAAGGTGG	AGTCGGGGAA	CGCCAAGCCG	CTCTACTTCC	ACCGGAAGTG	ACTGCCCGCT	3180
CCCCAGAAGA	ACTTTGCCCT	AAGTTTCCCT	GTGTTGTTCC	ACACCCAGAA	GGACCCAAGA	3240
AAACCTGTTT	TTAACATGTG	ATGGTTGATT	CACACTTGTT	CAACAGTTTC	TCAAGTTTAA	3300

AGTCATGTCA	GAGGTTTGGG	GCCGGGAAAAG	CTGTTTTTCC	GTGGATTG	CGAGACCAGA	3360
GCAGTCTGAA	GGATTCCCCA	CCTCCAATCC	CCCAGCGCTT	AGAAACATGT	TCCTGTTTCT	3420
CGGGATGAAA	AGCCATATCT	AGTCAATAAC	TCTGATTTTG	ATATTTTCAC	AGATGGAAGA	3480
AGTTTTAACT	ATGCCGTGTA	GTTTCTGGTA	TCGTTTCGCTT	GTTTTAAAAG	GGTTCAAGGA	3540
CTAACGAACG	TTTTAAAGCT	TACCCTTGGT	TTGCACATAA	AACGTATAGT	CAATATGGGG	3600
CATTAATATT	CTTTTGTAT	TAAAAAACA	CAAAAAAATA	ATAAAAAAT	ATATACAGAT	3660
TCCTGTTGTG	TAATAACAGA	ACTCGTGGCG	TGGGGCAGCA	GCTGCCTCTG	AGCCCTCGCT	3720
CGTCCACGGT	CTTCTGCATC	ACTGGTATAC	ACACTCGTTA	GCGTCCATTT	CTTATTTAAT	3780
TAGAATGGAT	AAGATGATGT	TAAATGCCTT	GGTTTGATTT	CTAGTATCTA	TTGTGTTGGC	3840
TTTACAAATA	ATTTTTTGCA	GTCTTTTGCT	GTGCTGTACA	TTACTGTATG	TATAAATTAT	3900
GAAGGACCTG	AAATAAGGTA	TAAGGATCTT	TTGTAAATGA	GACACATACA	AAAAAAATCT	3960
TTAATGGTTA	ATAGGATGAA	TGGGAAAGTA	TTTTTGAAAG	AATTCTATTT	TGCTGGAGAC	4020
TATTTAAGTA	CTATCTTTGT	CTAAACAAGG	TAATTTTTTT	TTGTAAAGTG	CAATGTCTCTG	4080
CATGCATAAT	GAACCGTTTA	CAGTGTATTT	AAGAAAGGGA	AAGCTGTGCC	TTTTTTAGCT	4140
TCATATCTAA	TTTACCATTA	TTTACAGTC	TCTGTTGTAA	ATAACCACAC	TGAAACCTCT	4200
TCGGTTGTCT	TGAAACCTTT	CTACTTTTTT	TGTACTTTTT	GTTTTGTTCT	TGGTCTCCCG	4260
CTTGGGGCAT	TTGTGGGACT	CCAGCACGTT	TTCTGGCTTC	TGCTTCATCC	TGCTCCATCG	4320
GGGAATGACA	CCTGCGGTG	TCTGCAGCTC	CTGGAAGGTG	TCATTTGACA	ACACATGTGG	4380
GAGAGGAGGT	CCTTGAGTG	CTGCAGCTTT	GGGAAAGCCT	GCCTCGTTTC	CCTTTTCCTC	4440
TAGAAGCAGA	ACCAGCTCTA	CGAGAGTGAG	ACTGGGAAC	TGATGGCTCA	GAGAGCATCT	4500
TTTCTCCCA	TTTATAGAAA	TCAGATTTTC	TCCTGTGGGA	AAAAAAATTT	CCATGCACTC	4560
TCTCTCTGTT	AAAGATCAGC	TATTCCTTTC	TGATCTTGGA	AAGAGGTTCT	GCACTCCTGG	4620
AACCGGTCAC	AGGAACGCAC	AGATCATGGC	AGGATGCGCT	GGGACGGCCC	ATCTTGCCAA	4680
GGTTCAGTCT	GAATGGCATG	GAGACCGGGA	GATAGAGGGG	TTTTAGATTT	TTAAAGGTA	4740
GGTTTTAAAA	ATAAGTTTTA	TACATAAACA	GTTTTGGAGA	AAAATTACAG	ATCATATAAG	4800
CAAGACAGTG	GCACTAAAAT	GTTTAATTCA	TTAATCTGTT	TGTTTGGCAC	TGATGCAATG	4860
TATGGCTTTT	CTCTTGCCCC	AAATCACAAA	CATATGTATC	TTTGGGGAAA	CTAACAATAT	4920
GATTGCACTA	AATAAACTAC	TTTGAATAGA	GGCCAAATTA	ATCTTTTAAA	AATGATGATA	4980
ATCATCAGGT	TTACTCAGTG	AAATCATATT	AATTATTTTC	CAAAATCTAA	AAGCTGTAGC	5040
TGGAGAAGCC	CATGGCCACG	AGGAAGCAGC	AATTAATTAG	ATCAACACTT	TTCTCCAGGG	5100
TTCACCATGC	AGGCAACATT	ACCTTGCTCT	TCAAAAGACA	CCTGCCTTAG	TGCAAGGGGA	5160
AACCTGTGAA	AGCTGCACTC	AGAGGGAGGA	GTCTTTCTTA	CATAATTTGC	AATTTTCAGGA	5220
ATTTAATTTA	TAGGCAGATC	TTTAAATACA	GTCAACTTAC	GGTGCACAGT	AATATGAAAG	5280
CCACACTTTG	AAGGTAATAA	ATACACAGCA	TGCAGACTGG	GAGTTGCTAG	CAAACAAATG	5340
GCTTACTTAC	AAAAGCAGCT	TTTAGTTCAG	ACTTAGTTTT	TATAAAATGA	GAATTCTGAC	5400
TTACTTAACC	AGGTTTGGGA	TGGAGATGGT	CTGCATCAGC	TTTTTGATTT	AACAAAGTTA	5460
CTGGCTCTTT	GTGTGTCTCC	AGGTAACCTT	CTTGATTA	ACAGCAAAGC	CATATTCTAA	5520
ATTCACTGTT	GAATGCCCTGT	CCCAGTCCAA	ACTTGCTGTC	TGCTCTTATT	TTTGTACCAT	5580
ATTGCTCTTA	AAAATCTTGG	TTTGGTACAG	TTCATAATTC	ACCAAAAAGT	TCATATAATT	5640
TAAAGAAACA	CTAAATTAGT	TTAAAATGAA	GCAATTTATA	TCTTTATGCA	AAAACATATG	5700
TCTGTCTTTG	CAAAGGACTG	TAAGCAGATT	ACAATAAATC	CTTTACTTT		

SEQ ID NO:36 Seq ID NO:36 Protein sequence:
 Protein Accession #: NP_000892.1

1	11	21	31	41	51	
METKGYHSLP	EGLDMERRWG	QVSQAVERS	LGPTERTDEN	NYMEIVNVSC	VSGAIPNNST	60
QGSSKEKQEL	LPCLQDDNNR	PGILTSDIKT	ELESKELSAT	VAESMGLYMD	SVRDADYSYE	120
QQNQQGSMS	AKIYQNVEQL	VKFYKGNHR	PSTLSCVNT	LRSFMSDGS	SVNGGVMRAI	180
VKSPIMCHEK	SPSVCSPLNM	TSSVCSPAGI	NSVSSTTASF	GSFPVHSPIT	QGTPLTCSPN	240
AENRGRSHS	PAHASNVGSP	LSSPLSSMKS	SISSPPSHCS	VKSPVSSPNN	VTLRSSVSSP	300
ANINNSRCSV	SSPSNTNNRS	TLSSPAASTV	GSICSPVNN	FSYTASGTS	GSSTLRDVVP	360
SPDTQEKGAQ	EVFPFKTEEV	ESAINSGVTG	QLNIVQYIKP	EPDGAFFSSC	LGNSKINSND	420
SSFSVPIKQE	STKHSCSGTS	FKGNPTVNP	PFMDGSYFSF	MDDKDYYSLS	GILGPPVPGF	480
DGNCEGSGFP	VGIKQEPDDG	SYYPEASIPS	SAIVGVNSGG	QSFHYRIGAQ	GTISLSRSAR	540
DQSFQHLSS	PPVNTLVESW	KSHGDLSSRR	SDGYPVLEYI	PENVSSSTLR	SVSTGSSRPS	600
KICLVCGDEA	SGCHYGVVTC	GSCKVFFKRA	VEGQHNLYCA	GRNDCIIDKI	RRKNCPACRL	660
QKCLQAGMNL	GARKSKKLK	LKGIHEEQPQ	QQQPPPPPPP	PQSPEEGTTY	IAPAKEPSVN	720
TALVPQLSTI	SRALTPSPVM	VLENIEPEIV	YAGYDSSKPD	TAENLLSTLN	RLAGKQMIQV	780

VKWAKVLPGF	KNLPLEDQIT	LIQYSWMCLS	SFALSWRSYK	HTNSQFLYFA	PDLVFNEEKM	840
HQSAMYELCQ	GMHQISLQFV	RLQLTFEEYT	IMKVLLLLST	IPKDGLKSQA	AFEEMRTNYI	900
KELRKMVTKC	PNNSGQSWQR	FYQLTKLLDS	MHDLVSDLLE	FCFYTFRESH	ALKVEFPAML	960
VEIISDQLPK	VESGNAKPLY	PHRK				

SEQ ID NO:37 ~~Seq ID NO: 37~~ DNA sequence

Nucleic Acid Accession #: see Table 25 & 25A for complete list

1	11	21	31	41	51	
CCTACCAGGT	TCAAGCAACT	CTGCTGCCTC	AGCTCCCAAG	TAGCTGGGAT	TACAGGTGCA	60
TGCCACTACA	CCTGGCTTTT	TGTATTTTTA	GTAGAGATGG	TTTTCACTAT	GTTGGCCAGG	120
CTGATCTTGA	ATTCCTGGCC	TGAAGTAATC	TGCCTGCCTC	AGCCTCCCAA	AGTGCTGGGA	180
TTATAGGAGC	CACCACACCT	GGCATAACTG	GTATTTTTTA	TATGCTTCCT	GGGCAACTTA	240
AAAAATTGAT	TACTCTGTTG	TTTCTTCCTT	TTTTTTTTTT	TTTTGGCTTT	GACCAATTTG	300
TGAGACCCAA	GTATCTCCTA	CCTAGAAAAA	AAACACACTA	AACAGTAAAT	GATTACCAAC	360
CTATTTGGAA	CAAATCTCAA	TTAATTAACA	TATACTTCAA	GGAGAAGACT	TAACAAAATC	420
TTACTTTTCT	TTCTTAATAG	CTCTTTCCAT	AAAAATGTTC	CACAAGTGTA	TCAAATTAGT	480
CCTAACCACT	ACTGTTAAGT	GATTAATGAA	ACAGGAGTGA	CAGGAGTGAA	TTTAATAATA	540
GCAATAAATA	CAGATGGGAC	TACATAAATT	GTGGAGGTCC	TGATGCAAAA	CTCTCTCTGT	600
ATTCGATGGC	ATCTCAGCTT	TCTCATAGAG	CTGTTTCACT	GTGAGGGTCT	TTATCCTTCA	660
TGCAGAGCTT	CATTATTTTC	TTTCTTCTAG	CAATCAGTCC	AAAGCACAAAT	GTCAGAAAGA	720
TCACAACACA	TGCAGCAATA	ATGGGCTCTA	TTGGTACACC	CACAGTTTTA	TCTTTAACAA	780
TC						

SEQ ID NO:38 ~~Seq ID NO: 38~~ DNA sequence

Nucleic Acid Accession #: NM_001192.1

Coding sequence: 219-773

1	11	21	31	41	51	
AAGACTCAAA	CTTAGAAACT	TGAATTAGAT	GTGGTATTCA	AATCCTTACG	TGCCGCGAAG	60
ACACAGACAG	CCCCCGTAAG	AACCCACGAA	GCAGGCGAAG	TTCATTGTTC	TCAACATTCT	120
AGCTGCTCTT	GCTGCATTTG	CTCTGGAATT	CTTGTAGAGA	TATTACTTGT	CCTTCCAGGC	180
TGTTCTTTCT	GTAGCTCCCT	TGTTTTCTTT	TTGTGATCAT	GTTGCAGATG	GCTGGGCAGT	240
GCTCCCAAAA	TGAATATTTT	GACAGTTTGT	TGCATGCTTG	CATACCTTGT	CAACTTCGAT	300
GTTCCTCTAA	TACTCCTCCT	CTAACATGTC	AGCGTTATTG	TAATGCAAGT	GTGACCAATT	360
CAGTGAAAGG	AACGAATGCG	ATTCTCTGGA	CCTGTTTGGG	ACTGAGCTTA	ATAATTTCTT	420
TGGCAGTTTT	CGTGCTAATG	TTTTTGCTAA	GGAAGATAAG	CTCTGAACCA	TTAAAGGACG	480
AGTTTAAAAA	CACAGGATCA	GGTCTCCTGG	GCATGGCTAA	CATTGACCTG	GAAAAGAGCA	540
GGACTGGTGA	TGAAATTATT	CTTCCGAGAG	GCCTCGAGTA	CACGGTGGAA	GAATGCACCT	600
GTGAAGACTG	CATCAAGAGC	AAACCGAAGG	TCGACTCTGA	CCATTGCTTT	CCACTCCCAG	660
CTATGGAGGA	AGGCGCAACC	ATTCTTGTC	CCACGAAAAC	GAATGACTAT	TGCAAGAGCC	720
TGCCAGCTGC	TTTGAGTGCT	ACGGAGATAG	AGAAATCAAT	TTCTGCTAGG	TAATTAACCA	780
TTTCGACTCG	AGCAGTGCCA	CTTTAAAAAT	CTTTTGTGAG	AATAGATGAT	GTGTCAGATC	840
TCTTTAGGAT	GACTGTATTT	TTCAAGTGCC	GATACAGCTT	TTTGTCTCTC	AACTGTGGAA	900
ACTCTTTATG	TTAGATATAT	TTCTCTAGGT	TACTGTTGGG	AGCTTAATGG	TAGAAACTTC	960
CTTGTTTCA	TGATTAAAGT	CTTTTTTTTT	CCTGA			

SEQ ID NO:39 ~~Seq ID NO: 39~~ Protein sequence:

Protein Accession #: NP_001183.1

1	11	21	31	41	51	
MLQMAGQCSQ	NEYFDSLHA	CIPCQLRCSS	NTPPLTCQRY	CNASVTNSVK	GTNAILWTCL	60
GLSLIISLAV	FVLMFLLRKI	SSEPLKDEFK	NTGSGLLGMA	NIDLEKSRTG	DEIILPRGLE	120
YTVEECTCED	CIKSKPKVDS	DHCFPLPAME	EGATILVTTK	TNDYCKSLPA	ALSATEIEKS	180
ISAR						

SEQ ID NO:40 ~~Seq ID NO: 40~~ DNA sequence
Nucleic Acid Accession #: NM_025087.1
Coding sequence: 183-2282

1	11	21	31	41	51	
ACACTGCCTC	GGTTCGGCAA	GTGGGTCAGT	TGGCTGGGGC	TCACTTGGCA	ACGGGACGCG	60
GGAACGAGGG	GCGCGGACGC	AGGCCCGGGA	GGACGCGGCG	GCGGGAACCT	GGGGGCGCAG	120
GGCTAGGGCA	GCGGGCCCGA	CCCGCACGGC	TTTCCTGGAA	AGCGCTGCCC	CTCGCCGCGG	180
CGATGACCTC	GCTGTGGAGA	GAAATCCTCT	TGGAGTCGCT	GCTGGGATGT	GTTTCTTGGT	240
CTCTCTACCA	TGACCTGGGA	CCGATGATCT	ATTACTTTCC	TTTGCAAACA	CTAGAACTCA	300
CTGGGCTTGA	AGGTTTtagT	ATAGCATTTC	TTTCTCCAAT	ATTCCTAACA	ATTACTCCTT	360
TCTGGAAATT	GGTTAACAAG	AAGTGGATGC	TAACCCTGCT	GAGGATAATC	ACTATTGGCA	420
GCATAGCCTC	CTTCCAGGCT	CCAAATGCCA	AACTTCGACT	GATGGTTCTT	GCGCTTGGGG	480
TGTCTTCCTC	ACTGATAGTG	CAAGCTGTGA	CTTGGTGGTC	AGGAAGTCAT	TTGCAAAGGT	540
ACCTCAGAAT	TTGGGGATTG	ATTTTAGGAC	AGATTGTTCT	TGTTGTTCTA	CGCATATGGT	600
ATACTTCACT	AAACCCAATC	TGGAGTTATC	AGATGTCCAA	CAAAGTGATA	CTGACATTAA	660
GTGCCATAGC	CACACTTGAT	CGTATTGGCA	CAGATGGTGA	CTGCAGTAAA	CCTGAAGAAA	720
AGAAGACTGG	TGAGGTAGCC	ACGGGGATGG	CCTCTAGACC	CAACTGGCTG	CTGGCAGGGG	780
CTGCTTTTGG	TAGCCTTGTT	TTCTCACCC	ACTGGGTTTT	TGGAGAAGTC	TCTCTTGTTT	840
CCAGATGGGC	AGTGAGTGGG	CATCCACATC	CAGGGCCAGA	TCCTAACCCA	TTTGAGAGTG	900
CAGTACTGCT	GTGCTTGGCA	AGTGGATTGA	TGCTTCCATC	TTGTTTGTGG	TTTCGTGGTA	960
CTGGTTTGAT	CTGGTGGGTT	ACAGGAACAG	CTTCAGCTGC	GGGGCTCCTT	TACCTGCACA	1020
CATGGGCAGC	TGCTGTGTCT	GGCTGTGTCT	TCGCCATCTT	TACTGCATCC	ATGTGGCCCC	1080
AAACACTTGG	ACACCTTATT	AACTCAGGGA	CAAACCCTGG	GAAAACCATG	ACCATTGCCA	1140
TGATATTTTA	TCTTCTAGAA	ATATTTTCTT	GTGCCTGGTG	CACAGCTTTT	AAGTTTGTCC	1200
CAGGAGGTGT	CTACGCTAGA	GAAAGATCAG	ATGTGCTTTT	GGGGACAATG	ATGTTAATTA	1260
TCGGGCTGAA	TATGCTATTT	GGTCCTAAGA	AAAACCTTGA	TTTGCTTCTT	CAAAACAAAA	1320
ACAGTTCTAA	AGTGCTTTTC	AGAAAAGATG	AAAAATACAT	GAAACTTTTT	CTGTGGCTGC	1380
TTGTTGGTGT	GGGATTGTTG	GGATTAGGAC	TACGGCATAA	AGCCTATGAG	AGAAAAGTGG	1440
GCAAAGTGGC	ACCAACCAAA	GAGGTCTCTG	CTGCCATCTG	GCCTTTCAGG	TTTGGATATG	1500
ACAATGAAGG	GTGGTCTAGT	CTAGAAAGAT	CAGCTCACCT	GCTCAATGAA	ACAGGTGCAG	1560
ATTTTCATAAC	AATTTTGGAG	AGTGATGCTT	CTAAGCCCTA	TATGGGGAAC	AATGACTTAA	1620
CCATGTGGCT	AGGGGAAAAG	TTGGGTTTCT	ATACAGACTT	TGGTCCAAGC	ACAAGGTATC	1680
ACACTTGGGG	GATTATGGCT	TTGTCAAGAT	ACCCAATTGT	GAAATCTGAG	CATCACCTTC	1740
TTCCGTCACC	AGAGGGCGAG	ATCGCACCAG	CCATCACATT	GACCGTTAAC	ATTTTCGGCA	1800
AGCTGGTGGA	TTTTGTCTGT	ACACACTTTG	GGAAACCAAG	AGATGACCTC	GACAGGAAAC	1860
TGCAGGCTAT	TGCTGTTTCA	AAACTACTGA	AAAGTAGCTC	TAATCAAGTG	ATATTTCTGG	1920
GATATATCAC	TTCAGCACCT	GGCTCCAGAG	ATTATCTACA	GCTCACTGAA	CATGGCAATG	1980
TGAAGGATAT	CGACAGCACT	GATCATGACA	GATGGTGTGA	ATACATTATG	TATCGAGGGC	2040
TGATCAGGTT	GGGTTATGCA	AGAATCTCCC	ATGCTGAACT	GAGTGATTCA	GAAATTCAGA	2100
TGGCAAAATT	TAGGATCCCT	GATGACCCCA	CTAATTATAG	AGACAACCAG	AAAGTGGTCA	2160
TAGACCACAG	AGAAGTTTCT	GAGAAAATTC	ATTTTAATCC	CAGATTTGGA	TCCTACAAAG	2220
AAGGACACAA	TTATGAAAAC	AACCATAATT	TTCATATGAA	TACTCCCAAA	TACTTTTTAT	2280
GAAACATTTA	AAACAAGAAG	TTATTGGCTG	GGAAAACTA	AGAAAAAAG	TATGTAAGAT	2340
AAAAAGAAGA	GATTAATGAA	AGTGGGAAAA	TACACATGAA	GAACCTCAAC	TTAAAAAACA	2400
CATGGTATCT	ATGCAGTGGG	AAATTACCTC	CATTTGTAAA	CTATGTTGCT	TAATAAAAAC	2460
ATTTCTCTAA	AAAAAAAAAA	AAAAAA				

SEQ ID NO:41 ~~Seq ID NO: 41~~ Protein sequence:
Protein Accession #: NP_079363.1

1	11	21	31	41	51	
MTSLWREILL	ESLLGCVSWS	LYHDLGPMIY	YFPLQTLLEL	GLEGFSIAFL	SPIFLTITPF	60
WKLVNKKWML	TLLRIITIGS	IASFQAPNAK	LRLMVLALGV	SSSLIVQAVT	WWSGSHLQRY	120
LRIWGFILGQ	IVLVVLRWY	TSLNPIWSYQ	MSNKVILTLS	AIATLDRIGT	DGDCSKPEEK	180
KTGEVATGMA	SRPNWLLAGA	AFGSLVFLTH	WVFGEVSLVS	RWAVSGHPHP	GPDPNPFGBA	240
VLLCLASGLM	LPSCLWFRGT	GLIWVVTGTA	SAAGLLYLHT	WAAAVSGCVF	AIFTASMWPQ	300
TLGHLINSGT	NPGKTMTIAM	IFYLLEIFFC	AWCTAFKFVP	GGVYARERSD	VLLGTMMLII	360

GLNMLFGPKK	NLDLLLQTKN	SSKVLFRKSE	KYMKLFLWLL	VGVGLLGLGL	RHKAYERKLG	420
KVAPTKEVSA	AIWPFRFGYD	NEGWSSLERS	AHLLNETGAD	FITILESAS	KPYMGNNDLT	480
MWLGEKLGFY	TDFGPSTRYH	TWGIMALSRY	PIVKSEHLL	PSPEGEIAPA	ITLTVNISGK	540
LVDFVVTHFG	NHEDDLDRKL	QAIAVSKLLK	SSSNQVIFLG	YITSAPGSRD	YLQLTEHGNV	600
KDIDSTDHDR	WCEYIMYRGL	IRLGARISH	AELSDSEIQM	AKFRIPDDPT	NYRDNQKVI	660
DHREVSEKIH	FNPRFGSYKE	GHNYENNHNH	HMNTPKYFL			